The newly formed Sears Holdings picks Kmart CIO Karen Austin to manage its IT operations. PAGE 6

Most of the $25 million that Bonneville Power spent on a software rollout is water over the dam now. PAGE 7

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APRIL 4, 2005 ▪ VOL. 39 ▪ NO. 14 ▪ $5/COPY

Users Seek Answers From New HP CEO

Former NCR exec Hurd says he will emphasize user needs and financials but offers few details

BY PATRICK THIBODEAU AND LUCAS MEARIAN

Mark Hurd, who took over as Hewlett-Packard Co.'s CEO last week, said one of his first priorities will be meeting with HP's employees, customers and partners over the coming weeks and months. "Don't expect to see a lot of me right now," he bluntly told reporters before ending a press conference.

HP users said they will be ready for Hurd, who until last Tuesday was president and CEO of NCR Corp.

HURD vowed a "relentless focus" on users.

Ten customers interviewed after HP announced his hiring said they want answers to questions about the company's overall direction and its plans for specific product lines. They also offered plenty of advice for Hurd, including suggestions that he get HP out of the PC business and make it more customer-oriented than it was under former CEO Carly Fiorina.

The clock is ticking for HP, said Gary Pilafas, a senior storage and systems architect at UAL Loyalty Services Inc., a unit of United Air Lines Inc. Hurd "needs to define their future and get the word out quickly," Pilafas said, adding that he thinks HP should spin off its PC operations in order to "focus on the profitable units."

HP CEO, page 16

INSIDE

A book by Mark Hurd provides some insights into his methods

PAGE 16

Microsoft Fills Security Gaps In OS Update

BY CAROL SLIWA

IT managers will find several tools designed to help them protect systems from security threats in the first service pack update for Windows Server 2003, which Microsoft Corp. released last week — nearly two years after the operating system's debut.

Some users said Service Pack 1 could reduce the need to augment Windows Server 2003 with third-party security software. New features in SP1

OS Update, page 49

Comdex '05 Cancellation Draws Yawns

Users say they don't miss once-vital show

BY TODD R. WEISS

No Comdex this November? No problem, IT managers said last week after the Las Vegas trade show was canceled for the second straight year.

They added that the one-time main event in the computer industry had lost its focus in recent years, becoming a showcase for products and technology that were of little interest to corporate IT.

Bob Schwartz, CIO at Panasonic Corporation of North

Comdex, page 49

MORE ONLINE

Read full coverage of Comdex's travails in recent years on our Web site:

QuickLink a1260
www.computerworld.com

HARRY CAMPBELL

INVASION OF THE iSCSI ARRAYS

Early adopters say iSCSI has become a strong rival to Fibre Channel for low-end, midrange and departmental storage.
By Robert L. Mitchell
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NEWSPAPER

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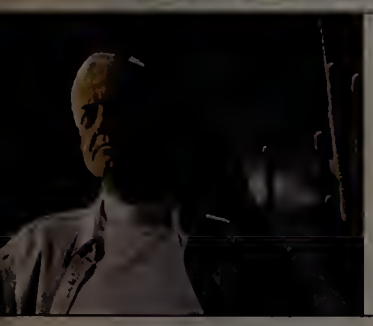

So You Want to Be on the Board

In the Management section: IT Mentor John Blair lays out a plan to get you from the CIO's office to the board of directors. (It worked for him.) **Page 33**

Open Ticket for Continental

In the Technology section: Continental Airlines found out it was pushing the envelope when it decided to move its automated ticket-reissue application to an open-source software stack that included a 64-bit MySQL database server, says Michael McDonald, the company's director of technology. **Page 24**

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Decide to Be Decisive

IT MANAGEMENT: Indecision adds costs to projects and can place them in peril, say Michael Patterson and Patricia Pruden. They offer advice for overcoming it. QuickLink 53308

Ten Questions About Sarb-Ox

STORAGE: Can you or your CEO answer these questions on the Sarbanes-Oxley Act? Knowing the answers could keep your company on solid ground and your CEO on the job. QuickLink 53163

Untangle That Spaghetti

DATA MANAGEMENT: Data hubs can help streamline the mess of point-to-point links between many applications. And there are finally some ready-made products to help with implementation, says columnist Melissa A. Cook. QuickLink 53504

Standards and the Grid

HARDWARE: Columnist Ian Foster talks with Internet pioneer Vinton Cerf about the role of standards in promoting Internet adoption and what lessons that might hold for grid computing. QuickLink 53400

Webcast: Storage Case Study

STORAGE: John D. Halamka, CIO at CareGroup Health System and Harvard Medical School, oversees infrastructure for 3,000 doctors who move 70TB of data a day. He discusses how to keep users happy in this webcast. QuickLink k1700

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AT DEADLINE

Explorer, Outlook Flaws Probed

Microsoft Corp. is investigating a new set of potentially serious security flaws in Internet Explorer and Outlook reported by security company eEye Digital Security. The flaws in the browser and e-mail client could let an attacker take control of a system with minimal action from the user, according to eEye. The flaws are ranked as high risk.

Intel to Abide by Japanese Ruling

Intel Corp.'s Japanese subsidiary has agreed to accept recommendations made by the Japan Fair Trade Commission as part of an investigation into alleged unfair business practices by Intel. The chip maker said it disagrees with findings that it restrained competition in the Japanese PC chip market but intends to abide by the cease-and-desist provisions of the recommendation.

MCI to Consider Latest Qwest Bid

MCI Inc. will consider a new bid from Qwest Communications International Inc., even though MCI has twice said that it intends to be acquired by Verizon Communications Inc. Just days after accepting a Verizon bid for a second time, MCI said it will "re-engage" in merger talks with Qwest. Qwest on Thursday increased its bid for MCI to $8.9 billion, about $1.3 billion more than Verizon's offer.

Berkeley Hit With Student Data Theft

Officials at the University of California, Berkeley, are notifying more than 98,000 graduate students and applicants about the theft of a laptop computer containing their names, Social Security numbers and other information. Officials said no reports have been received about misuse of the data. The laptop was stolen March 11 from a restricted area.

Oracle Joins Rush to Acquire Identity Tools

Oblix buy furthers consolidation trend; vendor gains non-Oracle ID capabilities

BY JAIKUMAR VIJAYAN

ORACLE CORP.'S purchase of Oblix Inc. for an undisclosed sum last week is part of a movement among major IT vendors to address growing user demand for identity and access management software, analysts said.

The acquisition gives Oracle a range of software supporting capabilities, such as single sign-on and federated identity management. Cupertino, Calif.-based Oblix has about 100 employees and claims to have more than 150 customers, including The Boeing Co., Burger King Corp. and The Coca-Cola Co.

The Oblix software complements a set of tools that Oracle already sells and will allow it to offer users identity management functionality for non-Oracle applications, middleware and databases, said Thomas Kurian, a senior vice president at the software vendor. That includes the PeopleSoft and J.D. Edwards applications that Oracle acquired earlier this year, Kurian said.

Positive Results for Users

Purchases of so-called boutique vendors such as Oblix by larger, more well-established companies usually have positive results for users, said an IT manager at a large travel-industry company that uses Oblix's technology.

"The tools mature technically and functionally due to increased funding," said the IT manager, who asked not to be identified. "And it allows us to better leverage the relationships already established with our larger long-term vendors."

Oracle's acquisition plays into a growing corporate interest in tools that combine access control for Web applications with functions for administering the separate identity credentials associated with legacy applications running on mainframes and other systems, said Roberta Witty, an analyst at Gartner Inc.

"The need to comply with regulations is forcing identity and access management to the forefront at every organization," Witty said, referring to the mandates of laws such as the Sarbanes-Oxley Act.

Oracle is the latest in a line of large vendors that have added to their identity management capabilities through acquisitions.

On March 23, BMC Software Inc. announced that it had bought OpenNetwork Technologies Inc., a Clearwater, Fla.-based vendor of Web access-control and single sign-on tools, for an undisclosed price.

That followed a January 25 deal in which BMC acquired Calendra, a Paris-based developer of federated identity management software, for $33 million in cash.

Computer Associates International Inc. purchased Waltham, Mass.-based identity management vendor Netegrity Inc. for $430 million last November. And last week, CA said it had bought software for identifying and deleting obsolete or rogue user IDs on mainframes from InfoSec Inc. in North Barrington, Ill. The two companies didn't divulge the purchase price.

In addition, IBM, Sun Microsystems Inc. and Hewlett-Packard Co. have all made identity-related purchases over the past two years.

"Clearly, ID management is becoming a big-company market," said Phil Schacter, an analyst at Burton Group in Midvale, Utah. He added that small vendors "have difficulty growing fast and investing in the marketing infrastructure to be able to compete with the likes of CA and IBM."

53531

ID Check

[redacted]

CORE Offers identity management functions, including Web-based single sign-on, user self-registration and user provisioning.

SHARE Supports federated identity management.

COREsv Manages access to Web services.

Kmart CIO Gains Top IT Job at Sears Holdings

Austin to manage tech operations; Kelly exits retailer

BY CAROL SLIWA

Karen Austin, who had been the CIO at Kmart Holding Corp., was given the reins of the IT department at the newly formed Sears Holdings Corp. when Kmart completed its merger with Sears, Roebuck and Co. late last month.

Sears CIO Gerald Kelly Jr. left the combined company shortly after the deal closed on March 24, according to Sears Holdings spokesman Christopher Brathwaite. When Kmart and Sears announced their merger plans last November [QuickLink 50943], it was unclear whether Austin or Kelly would emerge as the leader of IT operations.

Austin, 43, is a 21-year IT veteran at Kmart and became CIO there in April 2002. In her expanded position, she will report to Aylwin Lewis, president of Sears Holdings and CEO of Kmart and Sears Retail.

Brathwaite said it's too early to comment about the degree to which the systems at Kmart and Sears will be integrated. The new company is still "working through the various layers of the structure of this organization" and has yet to determine what the top IT priorities will be going forward, he said.

David Hogan, senior vice president and CIO at the National Retail Federation in Washington, said he expects that the two retailers will find synergies from a sourcing and supply chain perspective. "If I had those two organizations, I would over time just take a look from a process-improvement perspective where the low-hanging fruit is and go after that," Hogan said.

Sparse Initiatives

Major IT initiatives were sparse during Austin's three-year tenure as Kmart's CIO, as the retailer battled to emerge from bankruptcy protection, which it finally did last May. One of the most recent projects at the company was a redesigned Web site that its e-commerce team built with help from Fry Inc. and launched the same week the merger was announced.

At Sears, Kelly had made some bold moves after being named CIO in October 2002. For example, he orchestrated a 10-year, $1.6 billion IT outsourcing deal with Computer Sciences Corp. in March 2004.

53529

Energy Supplier Switches Gears on Software Rollout

Bonneville Power drops $25M system, turns to hosted apps to meet mandates

BY MARC L. SONGINI

Electricity provider Bonneville Power Administration (BPA) recently abandoned a controversial $25 million software system that handled energy scheduling, transaction management and transmission availability.

In 1999, the Portland, Ore.-based BPA and Houston-based software vendor SoftSmiths Inc. started work on the so-called Electricity Transaction Management System (ETMS). The project was slated to cost $12 million and last one year. Nearly five years and $25 million later, the ETMS was mostly scrapped last November.

"Our challenge was to engage a system that was flexible, rapid and accurate," said BPA spokesman Edward Mosey. "The ETMS didn't deliver the necessary performance levels."

The new system was to replace a 30-year-old homegrown mainframe-based system that required transaction orders to be phoned in, faxed or e-mailed. That system didn't comply with federal regulations requiring greater speed and better visibility into transmission availability.

Late last year, the BPA turned to an alternative hosted system from Minneapolis-based Open Access Technology International Inc. (OATI) that went live in February and is already meeting the BPA's needs.

The BPA, which is overseen by the U.S. Department of Energy, provides wholesale electricity throughout the Northwest and must comply with regulatory requirements to provide greater efficiency in its transmission business.

Valuable Experience

Despite the failure of the initial effort, BPA officials said it was valuable to the operation. "BPA views the $25 million spent on the ETMS as a cost of implementing a scheduling automation system that meets its needs," said Mosey.

He noted that the BPA spent significant sums to create requirements-definition and refinement specifications that remain useful. "One result was that we have put into place a stronger project management organization to oversee IT projects," Mosey said.

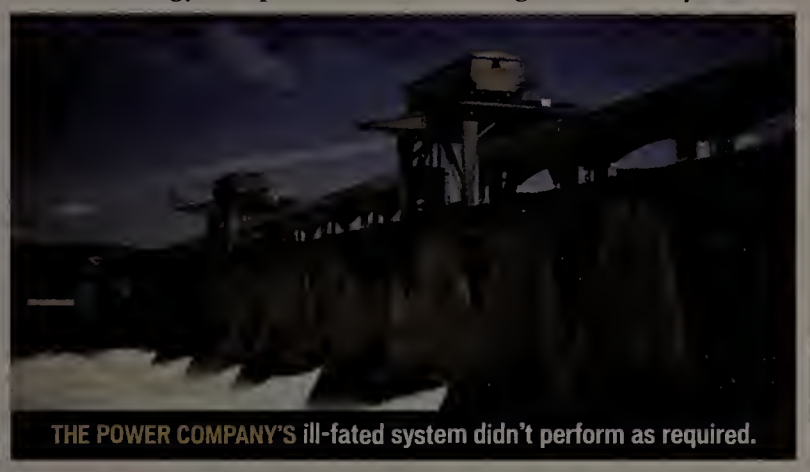
According to regulatory mandates, the BPA needed to fully support electronic tagging for each transaction by January 2005 — a deadline it would have badly missed had it not turned to the hosted system. Electronic tags track ownership of power from the source to the user.

"We have to track each and every transaction accurately and promptly. We worked through the challenges with SoftSmiths until we came to the conclusion that an alternative, the OATI, would better meet our needs," Mosey said. He didn't blame the problems on SoftSmiths but said that performance and other issues arose because of the customization required.

In the long run, the hosted system will cost less, Mosey said, although he declined to disclose the projected costs.

The ETMS was the subject of criticism in a February 2004 audit report from the Department of Energy's inspector general. The report charged that the project's management "lacked a comprehensive project plan and system development and implementation procedures." The ETMS was incapable of meeting "the demands of the automated, deregulated business environment," the audit stated.

The inspector general wasn't alone in raising a ruckus about the delays and costs associated with the ETMS. "In the past, I was ballistic over the handling of it — four years and $25 million down the drain," said Jerry Leone, manager of the Public Power Council, which represents 114 consumer-owned utilities that use the BPA's service. "I understand that now the new system is up and running and that it answers the BPA folks' needs. If this is indeed the case, then I am happy," he said.



THE POWER COMPANY'S ill-fated system didn't perform as required.

SoftSmiths defended its work on the project. "SoftSmiths delivered all products and services as contracted by the customer," said a company spokesman via e-mail.

"SoftSmiths' products performed as designed," he wrote. "Products delivered provided Bonneville Power Administration Transmission the capability to increase the level of automation it utilizes in its scheduling processes in accordance with management's implementation schedule and transition plan."

The spokesman added that the $25 million price tag didn't solely include payments to SoftSmiths; some of it went to other contractors. 53525

Users Prepare to Buy as Budgets Thaw

Desire for new functionality drives moves to replace core apps

BY THOMAS HOFFMAN

A thaw in the four-year IT spending freeze is becoming more evident as companies are slowly beginning to look at replacing core applications with newer systems that offer improved functionality and scalability, IT managers and analysts said last week.

At the same time, some organizations are using Web services and service-oriented architectures to extend some older applications in addition to installing new ones.

For instance, DTE Energy Co. in Detroit is deploying ERP software from SAP AG to replace five financial systems, two mainframe supply chain management systems and one human resources system, said CIO Lynne Ellyn.

The energy supplier is also replacing two distribution operations systems and nine implementations of a plant work management system with Maximo, an asset and service management system from Bedford, Mass.-based MRO Software Inc., she said.

DTE Energy is simultaneously harnessing Web services to help it develop applications for functions that few, if any, commercial systems can automate, said Ellyn.

Varied Predictions

In a survey of 118 senior financial executives published late last month by Iselin, N.J.-based Siemens Financial Services Inc., 73% of the respondents said they expect to have shorter replacement cycles for software over the next five years.

But Bill Zadrozny, president and CEO of the Siemens AG unit, which offers financing for hardware and software purchases, said he hasn't seen any significant increases in software spending from Siemens' users so far this year.

"We're hearing it from customers, but we're not seeing it yet," Zadrozny said.

Fenella Scott, an analyst at AMR Research Inc. in Boston, said the frequency of software replacement cited in the Siemens survey "seems a little aggressive." She estimated that roughly 5% of AMR's manufacturing industry customers plan to replace their core packaged applications over the next 12 months.

Harrah's Entertainment Inc. is making increased use of middleware from vendors such as Tibco Software Inc. to more closely integrate its existing systems, said Tim Stanley, vice president of IT and CIO at the Las Vegas-based gaming and hotel company.

But Harrah's is also upgrading its core off-the-shelf applications more frequently in order to migrate to newer versions that Stanley hopes will contain fewer bugs "and put us on a more predictable path."

Other CIOs, such as John Schille at American Fidelity Assurance Co. in Oklahoma City, said they aren't planning to increase software replacement over the near term because their applications are working as expected.

Kathy Quirk, an analyst at Nucleus Research Inc. in Wellesley, Mass., said, "What I'm seeing is that a lot of companies are selectively replacing software, depending on the business need." That includes instances where companies are consolidating multiple packages of CRM and other types of software onto a single platform or are upgrading various business users onto the same version of a system, she added. 53501

HDS to Unveil High-End Virtualization Platform

IBM, NetApp elbow into the spotlight with lesser storage announcements

BY LUCAS MEARIAN

HITACHI Data Systems Corp. today is expected to announce the availability of a network-attached storage (NAS) blade for its high-end virtualization storage platform. The new blade for the TagmaStore array allows file-level data transfers to back-end storage.

The blade is the first HDS-developed NAS offering. The company will continue to sell third-party NAS products under a reseller agreement with Network Appliance Inc.

Meanwhile, NetApp and IBM tried to take some of the luster off of HDS's entry into the NAS market by making some lesser announcements. IBM said it plans to add tape management to its SAN File System by year's end, and NetApp announced the renaming of its SAN/NAS gateway product.

Gary Pilafas, a senior storage and systems architect at UAL Loyalty Services Inc., an Arlington Heights, Ill.-based unit of United Air Lines Inc., said he will evaluate the new NAS blades for use with one TagmaStore array in production and two others that the airline recently purchased.

Pilafas said he hopes the blades can simplify his environment by managing the replication of block- and file-level data through a single interface.

"You don't have to have another appliance in front of your SAN with five 9s availability this way," Pilafas said.

Each of the TagmaStore's NAS blades scales to 512TB of capacity, and the array can hold up to eight blades, said Claus Mikkelsen, senior director of storage applications at Santa Clara, Calif.-based HDS.

As an example of its pricing plan, HDS said a new NAS blade with 1.2TB capacity will list for $86,700.

Developments at IBM

For its part, IBM disclosed plans to add tape management systems to the SAN File System. It also announced that it sold its 999th and 1,000th SAN Volume Controller (SVC) virtualization appliances. The buyer was the internal IT shop at Cisco Systems Inc.; ironically, Cisco has been feverishly pitching its own virtualization device embedded in its line of MDS 9000 storage switches.

A spokeswoman for Cisco's IT group, who wouldn't discuss the competition between the IBM and Cisco offerings, said the sales agreement for the IBM SVC was just signed and the appliance hasn't yet arrived. Cisco will use SVC along with other virtualization systems for data migration and replication, she said.

Brian Perlstein, a senior technology consultant at Oakwood Healthcare System in Dearborn, Mich., hopes to add the tape management function to his IBM SAN File System appliance. Perlstein also uses two SVC appliances to pool storage from an all-IBM storage-area network that includes high-end and midrange arrays.

Perlstein said that adding tape to the virtualization layer would let him simplify his infrastructure, which includes an IBM 3584 tape library.

Rick Villars, an analyst at IDC in Framingham, Mass., said IBM's announcement signals a maturation of virtualization, which creates a layer of abstraction between application servers and back-end storage.

ANNOUNCEMENTS

Virtualization

- **HDS** adds a NAS blade to its TagmaStore array.
- **IBM** will add tape management to its SAN File System by year's end; announces its 1,000th SAN Volume Controller sale.
- **NetApp** renames gFiler engine and plans support for arrays from all major storage vendors.

Name Change at NetApp

Meanwhile, Sunnyvale, Calif.-based NetApp last week changed the name of its virtualization appliance from the gFiler to the V-Series. NetApp also pledged that the V-Series will support IBM, EMC Corp. and Hewlett-Packard Co. arrays by midyear. The appliance now supports HDS arrays. The device acts as a virtualization layer between application servers and a heterogeneous storage architecture.

Jeff Hornung, vice president of enterprise file services and storage networking at NetApp, said that the company plans to integrate a distributed file system from Spinnaker Networks Inc. into the V-Series by the end of the year. NetApp acquired Spinnaker last year.

53505

Bridgestone Europe Turns to India for SAP Support

IT executive at tire maker says no layoffs are planned

BY PATRICK THIBODEAU

The European unit of Bridgestone Corp. plans to outsource support and maintenance of its SAP ERP system to an offshore firm in India, but the decision isn't expected to lead to any layoffs of IT staffers at the tire maker.

Bridgestone Europe will turn over management of its SAP AG applications to Satyam Computer Services Ltd. in Hyderabad, India, the two companies announced last month without disclosing any financial details.

The three-year agreement will let Bridgestone Europe "free up resources to focus on new requests and new demands," said Joe O'Neill, IT director at the Brussels-based unit.

O'Neill said that having the internal IT staff deal with SAP support issues isn't adding any value to Bridgestone Europe's business operations. Whether SAP problems are handled in Brussels or offshore "doesn't really matter to the business user, provided he gets a resolution," O'Neill said.

Because Bridgestone's SAP support operations are centralized in Brussels, shifting the work to India won't be difficult, he added. "We already have, I would say, a near-shore support organization within our own organization," O'Neill said.

Bridgestone has six manufacturing plants, a technical center and numerous sales and distribution facilities throughout Europe; its European ERP system supports about 2,000 end users.

> **"We already have, I would say, a near-shore support organization within our own organization."**
>
> JOE O'NEILL, IT DIRECTOR, BRIDGESTONE EUROPE

Moving support for packaged applications offshore is an increasingly common IT strategy, said Atul Vashistha, chairman and CEO of NeoIT Inc., a San Ramon, Calif.-based consulting firm that advises companies on offshore outsourcing. At first, many offshore initiatives were focused on support of custom applications, Vashistha said.

"Now we're starting to see significant-size, longer-term ERP support and maintenance deals happening," he said, noting that many offshore actions aren't made public.

O'Neill said Bridgestone Europe is in a transition phase on the support shift, finalizing agreements with Satyam and getting the processes in place to complete the move.

"Even though people's jobs aren't threatened by this, there's still a need for people to adapt," he said.

Bridgestone didn't disclose an estimated cost savings from the offshore deal, nor would O'Neill discuss the new projects that internal SAP support staffers will work on. But he said some of the expected benefits will arise from the company's ability to direct more of its internal resources toward other IT needs.

Manish Mehta, a director and senior vice president at Satyam, said the company has been providing SAP support for nearly six years and has more than 1,700 employees working in its SAP practice. The company has about 100 SAP clients, he added.

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Microsoft® Windows Server System™

BRIEFS

Equity Firms Invest $350M In Lenovo

Three U.S. private equity firms said they will invest $350 million in China's Lenovo Group Ltd. to help fund its takeover of IBM's PC business. Texas Pacific Group, General Atlantic Partners LLC and Newbridge Capital Group LLC will collectively own about 10% of Lenovo when the deal closes. Lenovo will use $150 million to finance its IBM purchase and the rest for working capital.

Google Buys Web Analytics Toolmaker

Google Inc. has acquired Urchin Software Corp., a Web site analytics system developer. Terms of the deal, which is expected to close in April, weren't disclosed. Urchin's software is used to provide data on user experience and allow the optimization of content and Web marketing. The system is used by more than 1 million sites worldwide.

i2 Technologies Cutting 300 Jobs

Supply chain vendor i2 Technologies Inc. has begun a round of layoffs that will see as much as 15% of its 2,000-person workforce eliminated. The struggling software vendor notified most employees of the layoffs last week, the end of its first quarter. The layoffs will be companywide and aren't focused on any one business unit or geographic region.

SunGard Agrees To $11.3B Buyout

SunGard Data Systems Inc. said its board of directors has approved a $11.3 billion buyout offer from seven investment firms. SunGard officials said that no layoffs are planned and that they are abandoning a plan announced earlier to split off its disaster recovery business from its software and processing business. SunGard's headquarters will remain in Wayne, Pa.

ON THE MARK

HOT TECHNOLOGY TRENDS, NEW PRODUCT NEWS AND INDUSTRY GOSSIP BY MARK HALL

DAVID CLARK

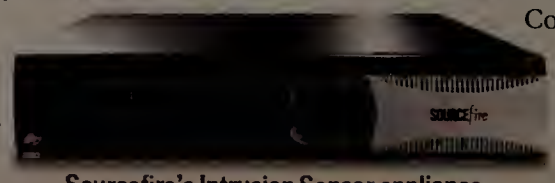
Microsoft Plans to Share Network . . .

. . . troubleshooting tool with users and vendors alike. But it wants a quid pro quo of a sort. According to Neil Leslie, general manager of Microsoft Corp.'s customer service and support group, the company within six months will release a beta version of Network Monitor 3.0, an upgrade of a tool that has shipped as part of its Systems Management Server (SMS) software. What will be different in the next SMS release, Leslie says, is that Netmon won't have a "90-day time bomb" that turns off the tool unless you buy it. In other words, if you get SMS, you'll get Netmon 3.0. Free. Netmon captures and stores network packets for analysis. It can filter packets by protocol type and let you find devices on your network and track their packet-broadcasting rates. The 3.0 release adds a Visual Basic-like scripting language so you can easily customize it, says Leslie. Today, he notes, you need C and assembler language skills to do so.

Now for the quid pro quo. Leslie says Microsoft will also make available later this year D-Code, its database of the various service and support tools that the company uses internally. The database not only lists what's what, but it also rates the effectiveness of what's what. Leslie says he wants other companies to rate their troubleshooting and analysis tools inside D-Code so the info can be shared broadly. Microsoft giveth, and it asketh.

Have a Snort so you can protect . . .

. . . your network in real time. That's Snort, the open-source intrusion-detection and -protection software. Sourcefire Inc. in Columbia, Md., this quarter will upgrade its Snort-based appliances to evaluate data packets at rates as high as 8Gbit/sec., according to Michele Perry, the company's chief marketing officer. The Intrusion Sensor appliances will be able to apply 2,900 network-access rules in real time, Perry says. She boasts that the rules can eliminate up to 80% of network alarms, thereby assuring IT managers that the alarms that do ring are truly trouble. Pricing for the high-speed Intrusion Sensors will start at $179,000.



Sourcefire's Intrusion Sensor appliance

CONLIN: Ease sales commission calculations.

IT lacks control of network . . .

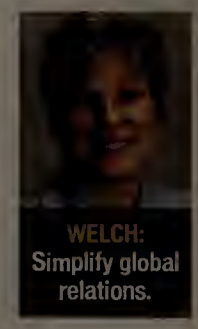
. . . perimeter because, well, it doesn't own that. So claims Rita Selvaggi, vice president of marketing at Permeo Technologies Inc. in Austin. She contends that 30% to 40% of the devices accessing corporate networks aren't owned or managed by internal IT departments. They're the home PCs of your employees and the computers used by your supply chain partners and your onshore and offshore outsourcers — in short, who knows who is using who knows what. If Selvaggi's right, you really don't know, which is why, she argues, you need to look at Permeo's new Base5 security software that's due to ship by this month. Base5 loads a tiny bit of code on every Windows machine that's accessing your network. That code links the devices to the Base5 server software, which proxies the entire session and applies your access policies. For example, if you don't allow cut-and-paste in a given application, it will ensure that there's none going on. Later in Q2, Permeo will add high-availability features to the server. Pricing can be as low as $50 per concurrent user.

Low-cost, ASP-style system for . . .

. . . managing sales commissions is on the horizon. Bob Conlin, vice president of marketing at Incentive Systems Inc. in Burlington, Mass., acknowledges that his company's software and rival products ain't cheap. "Our average license is $850,000," he says. And that's before you get to the spendy configuration stage, which could equal or even double the price tag. Sales commission management is complex, what with ramped rates, split commissions, drawdown adjustments and much more making commission estimates as much art as science — especially for those stuck using Excel as their primary tool. Conlin, whose company does business as Centive, claims that the upcoming Compel hosted service will be "a 100% solution for 80% of the market." Compel offers three dashboard views — an executive's perspective, the sales rep's view and one for compensation analysts. The service will be available at the end of this month and will cost $55 per user monthly. "That's less than you pay for a rep's cell phone bill," Conlin says.

Unify global sourcing with new tool . . .

. . . that understands world commerce. TradeStone Software Inc. in Gloucester, Mass., this week plans to release Unified Buying Engine, which links your operations with suppliers almost anywhere in the world, says CEO Sue Welch. She adds that the software handles logistics and financing issues and "normalizes" things such as currency rates and shipping data from the perspective of the end user. That is, a U.S. buyer would see costs in dollars, while a Chinese supplier would see them in yuan. Pricing starts at $150,000.


WELCH: Simplify global relations.

53488

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BRIEFS

VeriSign Close to New .net Deal

VeriSign Inc. has moved closer to renewing its contract to operate the .net domain registry. Telcordia Technologies Inc., an evaluator hired by the Internet Corporation for Assigned Names and Numbers, ranked VeriSign's bid higher than those of four other contenders for the contract, which will run for at least six years.

AMD Offers a First Look at Pacifica

Advanced Micro Devices Inc. has offered the first peek at Pacifica, its virtualization technology for use on server and desktop processors. The Pacifica specs are scheduled to be released this month. The technology allows multiple operating systems and applications to run in independent partitions on a single processor. Pacifica, due to be rolled out next year, was presented at the AMD Reviewer's Day last week in Austin.

Symantec Discloses Antivirus Tool Flaws

Symantec Corp. acknowledged that flaws in some of its antivirus products could allow malicious hackers to use denial-of-service attacks to crash systems running the software. The company has posted a notice on its Web page describing the vulnerabilities in Norton AntiVirus, Norton Internet Security and Norton SystemWorks. The company distributed patches with its LiveUpdate automatic update service.

Siebel Releases New CRM OnDemand

Siebel Systems Inc. has unveiled CRM OnDemand Release 7, a hosted contact-center system that it said can help users create customer-related workflows and get a better view of multichannel interactions. The new version has been integrated with other hosted applications in Siebel's Contact OnDemand package.

Tools Bridge IT, Operations

New products manage enterprise apps, service levels

BY HEATHER HAVENSTEIN

VENDORS ARE offering tools they say will help bridge the gap between development and IT operations and ease angst about management of distributed applications.

Mercury Interactive Corp. next week is set to unveil a diagnostic tool that company executives said will allow IT departments to identify, diagnose and resolve problems across J2EE, .Net, ERP and CRM applications.

The Diagnostics 3.0 tool will provide application testers and IT operations with one tool to manage performance as enterprises move applications to distributed platforms, said Ramin Sayer, director of product marketing at Mountain View, Calif.-based Mercury.

"Overall, what bridges these two groups . . . is the need to manage end-to-end service performance . . . and to be able to proactively detect and resolve problems," he said.

SmartMoney.com uses the Mercury Managed Services hosted system for monitoring the performance of its external Web sites and for the application service provider-based portfolio management and investment tools it provides to clients. The diagnostic tools, which will include Mercury's new offering, allow SmartMoney to troubleshoot application issues before they become problems to end users, said Al Castrillon, manager of technical operations at the New York-based firm. "You don't want to restrict your development team to a specific platform because of your monitoring technology," he said.

Dana Gardner, an analyst at The Yankee Group in Boston, said that before the unified Mercury tool, enterprises were forced to choose among tools for monitoring application performance based on platform and type of application.

To help organizations manage code and content changes in distributed environments, Interwoven Inc. in Sunnyvale, Calif., this week will roll out its Interwoven Content Provisioning suite. The suite is designed to let enterprises standardize how code and content changes are aggregated, synchronized and deployed in complex Web application environments.

Blue Cross and Blue Shield of Massachusetts Inc. is rolling out all the products in Interwoven's new suite to anchor the organization's enterprise strategy to move code and content across applications, said Frank Enfanto, vice president of operations delivery and information security at Blue Cross. "It allows you to move content along through different environments from development to staging to production in an organized and proper workflow," he said.

Compuware Corp. late last month announced new versions of its application performance management technology. Executives said it will help companies manage the performance of distributed applications that access IBM's DB2 on mainframes.

Compuware Strobe 3.2 pinpoints which SQL statements are using the most available CPU space or have delayed response turned on, allowing users to identify where problems are occurring. And iStrobe 2.1 lets users measure the performance of applications, the Detroit-based company said. **53517**

NEW PRODUCTS

Tools for Harnessing Distributed Apps

Mercury's **Diagnostics 3.0** is designed to identify, diagnose and resolve problems across J2EE, .Net, ERP and CRM applications. Gives application testers and IT operations a single tool for performance management.

Interwoven Content Provisioning includes hub server software for application code and configurations, file and database content. Interwoven's **OpenDeploy** server makes it easy to aggregate and distribute code and content to Web, file, database or application servers, or network-edge devices.

Compuware's **Strobe 3.2** and **iStrobe 2.1** are designed to help users manage performance of distributed applications that access DB2 on mainframes to prevent performance degradation as the amount of data in DB2 increases.

MORE ONLINE

IBM adds a version of WebSphere for z/OS-based mainframes:
QuickLink 53520
www.computerworld.com

NEW PRODUCT

Alcatel Switches Offer Software Key for Upgrades

OmniSwitch 6800L
Alcatel SA

■ **PRODUCT SUMMARY:** Alcatel today plans to introduce two versions of a corporate-class switch that can be upgraded from 10/100 Ethernet transmission rates to Gigabit Ethernet via software that's built in but not turned on. The Paris-based company said the stackable OmniSwitch 6800L switches support 24 or 48 ports and are suitable for small data centers or wiring closets at the edges of corporate networks, plus in installations where Gigabit Ethernet speeds to the desktop are desirable. Users can also buy a software key to upgrade to Gigabit Ethernet without needing additional hardware.

■ **USER EXPERIENCE:** Salem State University in Salem, Mass., plans to buy several 6800L switches for use in wiring closets in four buildings, said Brian Helman, the school's director of networking. Helman said that because he isn't sure when he will need to turn on the Gigabit Ethernet capability, the software upgrade being offered by Alcatel is a welcome feature. "The software key is good future-proofing," he said. Salem State started using Alcatel equipment in late 2003 after 3Com Corp. stopped making the switches that the school had been using, Helman said. About two months ago, he bought a standard OmniSwitch 6800, which was introduced in December and supports Gigabit Ethernet rates with 10 Gigabit Ethernet uplinks. Helman is using the device to run tape backups for a data center, and he said it's performing superbly. Helman acknowledged that Alcatel doesn't have a big presence in the U.S. "They are unknown, which is a little bit of a risk, but choosing them has proven to be correct," he said. "They're much more responsive than other vendors."

■ **ANALYST ASSESSMENT:** Zeus Kerravala, an analyst at The Yankee Group in Boston, said the 6800L's software upgrade capability is a "truly unique" feature. "It offers flexibility for people not sure when to upgrade to 1 Gigabit," he said. The 6800L also is less expensive than the similar-size Catalyst 3750 switch from Cisco Systems Inc., according to both Alcatel and Kerravala. But Kerravala questioned how well the products will be received by U.S.-based users. "Alcatel's problem is they have no brand recognition in the U.S.," he said. "They're mainly known as a French company that makes carrier-class equipment."

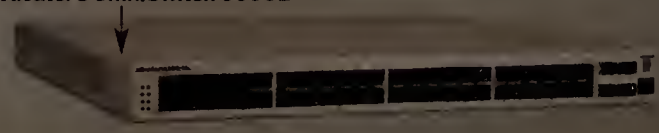
■ **OTHER VENDORS IN THIS MARKET:** Cisco, Extreme Networks Inc. and Foundry Networks Inc., among others.

■ **PRICE:** Starts at $3,295 for the 24-port switch and $4,795 for the 48-port model. The software key for upgrading to Gigabit Ethernet starts at $2,395.

■ **AVAILABLE:** Now **53532**

– Matt Hamblen

Alcatel's OmniSwitch 6800L



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GLOBAL DISPATCHES

An International IT News Digest

Tough Privacy Law Debuts in Japan

TOKYO

MANY COMPANIES throughout Japan, including foreign ones, will have to comply with a stringent new data privacy law that went into effect April 1.

The Personal Information Protection Law applies to any company that has offices in Japan and holds personal data on 5,000 or more individuals, including employees, according to Kazuhito Masui, an attorney at Shiba International Law Offices in Tokyo. Under the law, personal data includes a person's name, address, date of birth, sex, and home and mobile phone numbers. E-mail addresses are also covered if they're recognizable as a person's name.

Masui said the law requires companies to designate a corporate privacy officer, take security measures to prevent data from being leaked or stolen, and obtain consent from individuals before using personal information for any purpose other than the ones originally stated when the data was collected.

The law also sets possible fines of up to 300,000 yen ($2,804 U.S.) and jail sentences of up to six months for data managers who don't comply, Masui said.

■ PAUL KALLENDER, IDG NEWS SERVICE

GLOBAL FACT

.eu

A new top-level Internet domain for businesses and individuals in the European Union that has been approved by the Internet Corporation for Assigned Names and Numbers.

SOURCE: IDG NEWS SERVICE

Software AG, Rivet Offer XBRL Software

DÜSSELDORF, GERMANY

SOFTWARE AG, in Darmstadt, Germany, and Rivet Software Inc., in Englewood, Colo., last week announced a partnership to provide software for recording and transmitting financial information based on the Extensible Business Reporting Language (XBRL) standard.

Users of Software AG's Digital Reporting Platform will be able to use Rivet's Dragon Tag software to convert financial information in Microsoft Word and Excel formats into XBRL documents, the vendors said.

XBRL uses XML data tags so that financial data can be electronically extracted and exchanged for efficient financial reporting. Tax authorities in Belgium, the Netherlands and the U.K. plan to start requiring that financial documents be filed in XBRL within the next two years. The U.S. Securities and Exchange Commission will begin accepting voluntary filing of XBRL documents this month.

■ JOHN BLAU, IDG NEWS SERVICE

RFID Doesn't Deliver What FedEx Needs

SYDNEY, AUSTRALIA

RADIO FREQUENCY identification (RFID) technology is a long way from meeting the demanding standards of FedEx Corp., one of the courier's IT executives said at the Wireless Enterprise World conference here last month.

Linda Brigance, CIO at FedEx Asia Pacific, a regional unit based in Hong Kong, said the company's tests of RFID devices show scanning failure rates as high as 25%. "We get 99.9% accuracy in the scanning of bar codes, so anything less than that is really a step back in our business — it's not something we want to do," she said. "We want to wait and see when RFID gets the same accuracy rate." **53477**

■ JULIAN BAJKOWSKI, COMPUTERWORLD TODAY (AUSTRALIA)

Compiled by Mitch Betts.

Briefly Noted

Toshiba Corp. has developed prototype batteries that can be recharged about 60 times faster than conventional lithium-ion batteries. The technology could be available for notebook PCs and handheld devices in about three years, executives said last week.

■ PAUL KALLENDER, IDG NEWS SERVICE

Computer Sciences Corp. in El Segundo, Calif., last month signed a five-year, $17.6 million IT contract with Shanghai-based China Pacific Property Insurance Co. The insurer, which has about 26,000 employees and 1,700 offices, will install CSC's FutureFirst insurance administration system.

Ness Technologies Inc., a global IT outsourcing company in Hackensack, N.J., last week announced that it will acquire Radix Co., an IT services firm with offices in Bucharest and Iasi, Romania, for 3 million euros ($5.2 million U.S.). Radix, whose clients include major enterprises such as Romania's national electric utility and national railway, will become a subsidiary.

U.K. Gov't Withholds $25M From EDS

BY LAURA ROHDE

Electronic Data Systems Corp. is continuing to experience problems with a welfare case management and telephony system it developed for the U.K. government. As a result, the Plano, Texas-based company is having a hard time getting paid for its work on the project, which is now expected to cost $860.9 million.

As it continues to work with EDS to get the system for the Child Support Agency (CSA) fully operational, the Department of Work and Pensions (DWP) has withheld $25 million in payments to EDS over the past two years, according to the minister in charge of the department.

Though there has been some progress in developing new computer and telephony systems, some significant problems remain that "continue to slow progress on business recovery," Alan Johnson, secretary of state for the department, said in the latest House of Commons Parliamentary Select Committee progress report. The committee is charged with oversight of the department.

"The department continues to retain substantial payments from EDS," Johnson said. "[Annual payments are] determined by the contract and linked to service levels and to the degree of functionality delivered." Based on those criteria, the agency withheld $25.1 million in payments due to EDS, he said.

EDS is disputing the withholding of funds, the company said in a statement. A spokeswoman for EDS declined to clarify whether EDS was out of pocket for the payment or if it could recoup the money at a later date.

Implementation Hurdles

The computer system for the CSA, which has been delaying payments to tens of thousands of single parents, was launched in March 2003, two years behind schedule and $483.2 million over budget. It involves a Java-based application developed by EDS. The latest projected 10-year, $860.9 million price tag is up from the $806.5 million price projected last summer [QuickLink 49221].

A DWP spokeswoman said that because of the ongoing contractual issues, she could not comment further.

In July, the Select Committee issued a scathing report that characterized the EDS system as an "appalling waste of public money" and called for the entire system to be dumped if it was not fully operational by Dec. 1, 2004.

In November, Johnson said he was considering the "nuclear option" of pulling the plug on the system. But in last month's assessment, Johnson appeared to back away from shutting down the system. "An Agency Business Transformation Program is being developed, which will contain short-term tactical initiatives and also places significant emphasis on ensuring medium- to long-term sustained recovery," he said.

EDS and the DWP are working closely on the business transformation program, and the system is now providing service to over 620,000 cases, the committee said in its report. The committee was told in November that only 61,000 out of 478,000 single parents had received payments from the system and that a total of $1.4 billion in support payments remained uncollected [QuickLink 50982].

What was not provided was a date for when the system is expected to be satisfactorily functional. "The absence of a confirmed date for acceptable performance by the CSA, while understandable, is a major shortcoming in the government's response," said Sir Archy Kirkwood, chairman of the Work and Pensions Select Committee. **53508**

Rohde writes for the IDG News Service.

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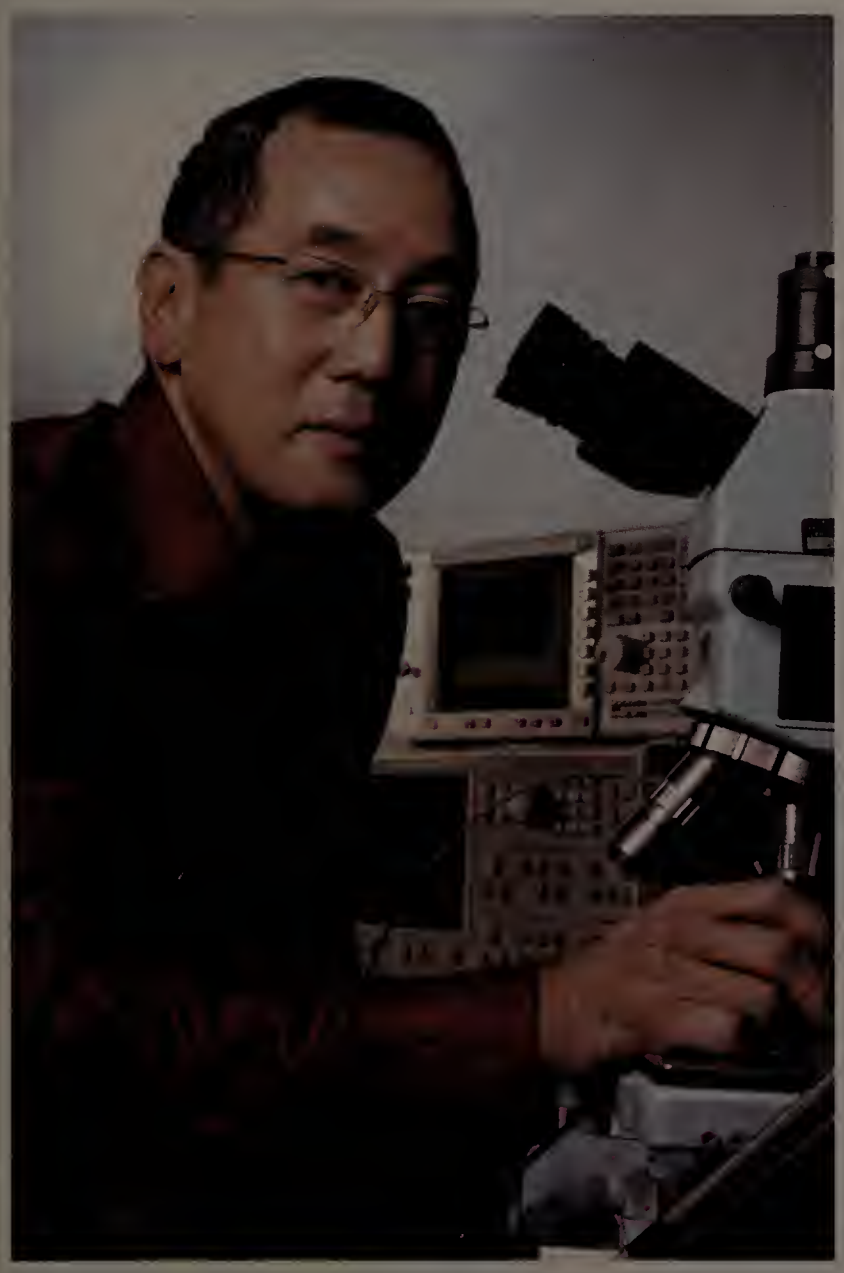

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Continued from page 1

HP CEO

Tyler Best, CIO at Vanguard Car Rental USA Inc., a Tulsa, Okla.-based company that owns the National and Alamo car rental brands, urged Hurd to fully engage users and find out what they're expecting from HP. Over the past few years, the vendor's concentration has all too often been focused inward, Best said.

"It's imperative not to lose touch with what's important to the customer," he said.

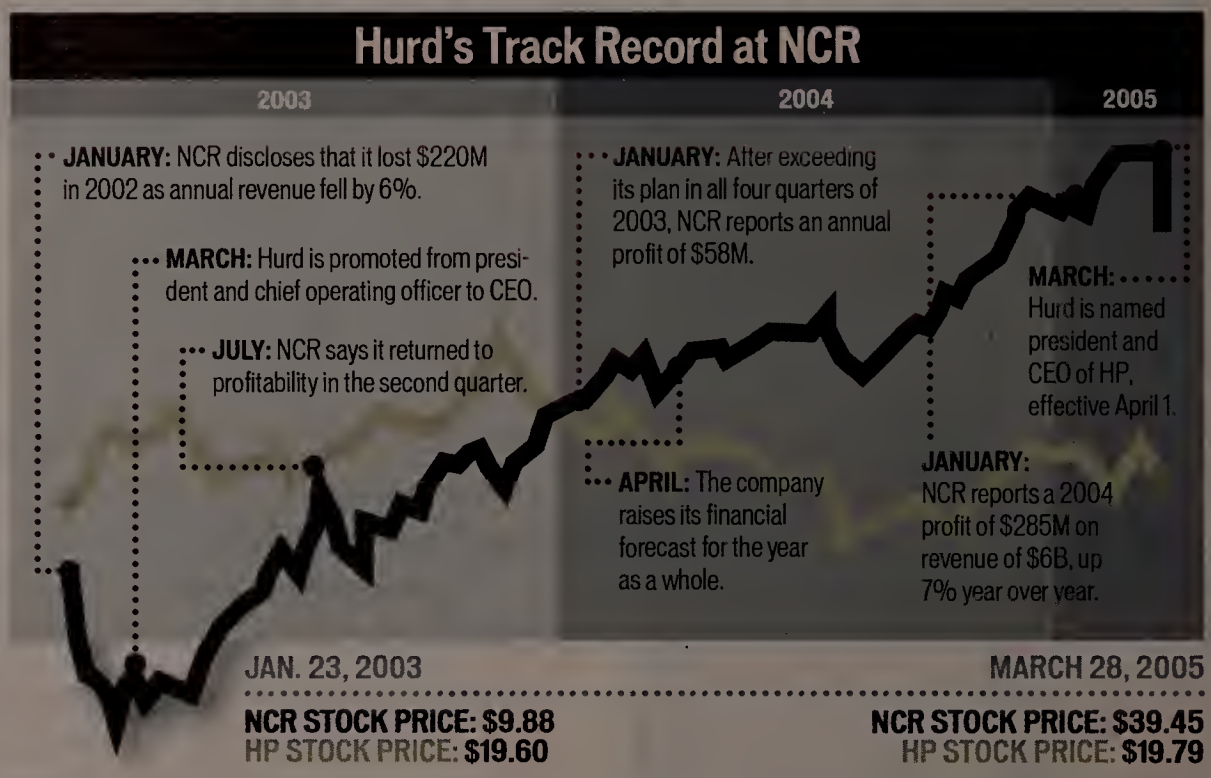
During his press conference and an earlier conference call with financial analysts, Hurd said little about how he may shape HP's strategy. He vowed to keep "a relentless focus" on meeting the needs of users. But he will also be focused on results, he added, saying that his management philosophy "reflects a fundamental belief in cost discipline and focused investment" in initiatives that have strong growth potential.

Users Uncertain

Denys Beauchemin, a director of the 100,000-member Interex HP user group, said he is worried that in order to cut costs, the new CEO will shorten the end-of-life road maps on products such as the HP e3000 midrange line and the company's Alpha-based systems.

Beauchemin, who is a systems migration consultant at Austin-based IT services firm Sector7 USA Inc., added that he thinks HP has strayed from the deep engineering roots established by its founders.

Hurd, who had spent the past 25 years at NCR and had been its CEO since March 2003, is relatively unknown to HP users. Most of the customers interviewed last week said they didn't know enough about Hurd to have an opinion about his ability to lead HP. That corresponded with the results of an informal poll on *Computerworld*'s Web site, in which 64% of the 235 people who had responded as of Friday afternoon said it was too soon to tell whether Hurd's hiring was a good move.



Members of HP's board cited the need for a more hands-on executive when Fiorina was ousted in February. They were drawn to Hurd by the fact that NCR's financial results and stock price improved significantly after he began running that company (see timeline).

Frank Gillett, an analyst at Forrester Research Inc., said Hurd "has demonstrated a lot of operational skills — the ability to make tough decisions and cut costs."

"If you look at the track record, he took a company that was floundering and took it to where it's a very healthy company," said Sam Bhavnani, a La Jolla, Calif.-based analyst at Current Analysis Inc.

But to succeed at HP, Hurd will have to keep users such as Ashok Bakhshi satisfied. The IT director at Schindler Elevator Corp. in Morristown, N.J., said HP needs to differentiate itself by bundling more services with its hardware.

He also said that the company should add more value to its products. For example, Bakhshi said he would find it helpful if HP preconfigured its PCs with applications such as SAP AG's ERP client.

Hurd will also have to address the concerns of users like Ron Horner, an e3000 user and legacy systems supervisor at Lady Remington Jewelry in Bensenville, Ill.

Horner said Fiorina did a lot to alienate the e3000 installed base by stopping sales of the systems in 2003 and holding off on responding to a proposal to turn over the source code for the e3000's MPE operating system to a third party. "HP has got to formally decide what they are ultimately going to do with MPE," Horner said.

But while some customers are unhappy with the changes at HP in recent years, others aren't. Tom Freeman, CIO for the city of Roseville, Calif., said he thinks HP's acquisition of Compaq Computer Corp. in 2002 changed its culture to a more customer-centric one.

"We saw a big change in HP that, to me, was positive," Freeman said, adding that he hopes Hurd will keep a close focus on customers and continue to invest in new products such as HP's digital pen technology. **53530**

Tom Krazit of the IDG News Service contributed to this story.

OUR TAKE

Don Tennant writes that HP was wise to avoid another celebrity CEO – and that Hurd would be wise to buy Novell. **Page 18**

Frank Hayes says Hurd needs to do some listening before taking action to clean up the "mess" he's inheriting. **Page 50**

Hurd's Paper Trail Puts Premium on Knowing Customers

IN A SENSE, Hewlett-Packard's new CEO, Mark Hurd, is an open book. He co-authored one last year outlining his belief that understanding customers is critical in a time when "virtually every industry is commoditizing."

In *The Value Factor: How Global Leaders Use Information for Growth and Competitive Advantage* (Bloomberg Press, 2004), Hurd and NCR Chairman Lars Nyberg said the key differentiator for companies in the current market environment is information: knowing customers' wants and needs.

"We don't go to the corner diner for the best food. We go because they know us and we don't even have to look at the menu," wrote Hurd and Nyberg, who was NCR's CEO before Hurd was given that job. "The value of knowing our customers rolls up from the corner diner to the largest corporations."

Hurd appeared to practice what he preached at NCR, said Tom Jung, a member of the board of the Midwest regional user group for NCR's Teradata data warehousing technology.

Jung, who is an adviser to the IT database administration group at WellPoint Inc. in Thousand Oaks, Calif., said he felt that NCR officials paid sufficient attention to customers and user groups under Hurd's leadership. Dayton, Ohio-based NCR often sent top officials to his regional user group's meetings, Jung noted.

In their book, Hurd and Nyberg also wrote about the need to innovate. But former NCR employee Robert A. Nisbet, a scientist who led some data mining research efforts at the Teradata division when Hurd was heading it, said Hurd isn't one to continue supporting technology that requires long-term development. "If he doesn't see immediate and significant feedback in terms of revenue after a couple of years, he's likely to pull the plug," said Nisbet, who left NCR in 2000 and is now a private consultant.

During his press conference at HP's headquarters last week, Hurd deflected questions about his plans for HP and didn't say whether he would reduce its workforce, which now stands at about 150,000, or move U.S.-based jobs offshore. But Hurd was hired to make changes.

"I believe in an execution-oriented culture," Hurd said. "I believe in setting clear goals, implementing tactical plans and holding people accountable."

And he acknowledged that HP needs some repairs. Although HP is "fundamentally sound" and a leader in many technology and services categories, Hurd said, "it is also clear that the company is not performing to its potential."

Zeus Kerravala, an analyst at The Yankee Group in Boston, called Hurd an unexpected choice to head HP.

"NCR is a small company, but I've heard that he's really good at sales and marketing, and that's what HP needs," Kerravala said. "HP touches so much of the enterprise that they need to have a unique brand identity. That's his biggest challenge."

– Patrick Thibodeau and Matt Hamblen

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DON TENNANT

After the Afterglow

I'VE BEEN RACKING MY BRAIN trying to remember if I've ever met Mark Hurd, the former CEO of NCR who last week was named the new CEO of Hewlett-Packard. I believe I must have, because I spent some time at NCR's headquarters in Dayton, Ohio, back in 1996 to interview then-CEO Lars Nyberg and some other NCR hotshots. Hurd, a 25-year NCR veteran, was already a rising star, so chances are I interviewed him or at least bumped into him. But darned if I can remember.

DON TENNANT is editor in chief of *Computerworld*. You can contact him at don_tennant@computerworld.com.

I know I wasn't the only one scratching my head last week. No doubt there were as many variations of the "never heard of Hurd" quip in your office as there were in ours. And if you Googled "Mark Hurd" for some help, you had to sift through references to guys like the "college student, mountain biker and all-around geek living in Dallas, Texas" in order to find anything on HP's new CEO. He doesn't stand out in a crowd.

And that in itself is testimony to the wisdom of HP's board. It didn't cave in to expectations that HP would seek a celebrity CEO who wouldn't disappear in the afterglow of Carly Fiorina. Hurd's appointment demonstrates that the board learned its lesson from going the celebrity route.

Hurd may not have made it onto a lot of magazine covers, but he has proved that he knows how to turn a faltering company around. Consider this: In 2002, NCR reported a net loss of $220 million; in 2003, Hurd took the CEO reins from Nyberg; and in 2004, NCR reported a net profit of $290 million.

Hurd also has three years as head of NCR's Teradata data warehousing division under his belt and is widely credited with its current success: In January, Teradata reported fourth-quarter revenue of $420 million, up 14% from the same quarter a year earlier. Those are the sorts of numbers that capture the attention of companies that are on the prowl for a CEO. And I have a hunch that the fact that Hurd had Teradata on his résumé wasn't lost on HP's prowling board.

HP needed a CEO who knows the software business. When Fiorina got the boot, I argued that her successor would need to mold the company more in the image of IBM, with a strong consulting business. A stronger software business is a prerequisite for that and will be vital to HP's health. So Hurd clearly has a mandate: Give HP a software future.

It's difficult to imagine that future without a much more compelling Linux vision than what HP has now. And if I were Hurd, I'd focus that vision squarely on Novell.

Novell's decision two years ago to adopt Linux as its NetWare migration path was the single most brilliant move by any technology vendor in the past five years. Almost overnight, that move, encompassing as it did the acquisitions of SUSE and Ximian, rescued Novell from a peripheral existence dependent on the stubbornness of an aging band of NetWare die-hards. It transformed the company into one of the most formidable bastions of Linux technology on the planet.

But nothing is forever, and with the recent exits of Vice Chairman Chris Stone and CTO Alan Nugent, Novell lacks the leadership it needs to fend off suitors. HP needs to grab Novell soon, because if it doesn't, IBM just might.

Don't forget that Fiorina lost the consulting unit of Pricewaterhouse-Coopers to IBM in 2002. Losing Novell to IBM is the last thing HP needs you to read about when you Google "Mark Hurd." **53483**

Don Tennant

BRUCE A. STEWART

The Changes To Come in Five Years

UPON HER appointment in 2010 as CIO and chief operating officer, an IT manager looks back on the past five years in the field:

It's hard to believe how much has changed in IT since 2005. Why, I can hardly recognize the place!

It's hard to put my finger on exactly what drove all the change. Was it the tightening labor market for legacy skills that finally forced us to act? Was it the turmoil of vendor after vendor merging, changing forever our product mix? Was it our management tools?

Those are all a part of the story, but in the end, I'd have to borrow a phrase from Sherlock Holmes and say that what really drove the change was the dog that didn't bark. Since 2005, there really hasn't been that much change in the technology world. Rather, what's changed is how IT decisions are made.

That wave of retirements, for instance, and the subsequent dearth of legacy skills finally forced the issue of application reinvestment. It was a tough fight convincing the business side that the shelf life of software isn't infinite. But as we showed how our portfolio was absorbing more costs with no more return — and as those emergency contractor calls to keep things moving started to add up — the point was driven home.

The vendor consolidation helped too. How many times in the past five years have we had to deal with products we liked being taken over by companies we didn't? We got burned a few times as well when vendors promised to keep our products going and then just abandoned development. It got us thinking about how to protect ourselves, and that finally opened the door for an architected future built

around Web services. Now, when one of our vendors is taken out of the game, it's easier to shift suppliers.

And some of those liability suits brought against the software suppliers helped make what we buy work better too. Fortunately, we decided to learn how to do sourcing better rather than just file lawsuits — and that's opened the door to much more flexibility in our infrastructure.

Now that we're more services-driven, we couldn't keep our old functional application teams. They just didn't make sense for us anymore. So we have some centers of excellence to consolidate key skills, some services teams and some enterprise offices (the program office is really helping to deal with business change, and the business architecture office is a key part of redesigning the company as a whole). Our relationship managers are managing investment flows and future cost structures for whole business processes now.

I never thought I'd have legal staff, consultants and so many external management advisers on my team, but we need all of them, especially to manage the mix of services we buy and the services we're providing both to the company and to our supply chain partners.

I was approached recently to change jobs. But not even a million-dollar salary could get me to go back and run an old-style IT organization now. Here, I really feel as though I'm running a business — and my clients think so too. It was a tough road, but here in 2010 I think we finally can deliver on the promise of IT. **53363**

MICHAEL H. HUGOS

The 'Define, Design, Build' Approach

ONE OF THE MOST important and complex things an IT professional is called on to do is implement new systems. This runs the gamut from rolling out packaged applications to creating custom systems. To get some insight, let me draw an analogy between this and another activity I have been deeply involved in lately.

My wife and I are doing a major remodeling job on our house. You can call us the "executive sponsors" of this project. It's complicated, so we hired an architect. We also hired contractors to do the construction and the electrical and plumbing work. We know generally what we'd like, but the architect is key to making it a reality. His approach is to clearly define what we want, design possible solutions and then supervise building what we choose. He doesn't tell us what to do, but he has a way of influencing our decisions. Whenever we jump to conclusions, we make decisions that cause problems and add to the cost later on.

MICHAEL H. HUGOS is CIO at Network Services Co., a distribution cooperative in Mount Prospect, Ill., that sells food-service and janitorial supplies. He is the author of *Building the Real-Time Enterprise: An Executive Briefing* (John Wiley & Sons Inc., 2004). He can be reached at **mhugos@nsconline.com**.

Implementing a new system is a lot like building or remodeling a house. As the IT guy, I play the role of the architect, and business managers are the homeowners. I encourage them to use a simple approach, and when we do, we are successful. When we don't, I usually get blamed for things going wrong.

In any systems project, there are technology issues (over which I have a lot of control) and a host of other issues that fall into the categories of people (meaning politics) and process (meaning getting people to do things in new ways). I have no control there. All I can do is exert constructive influence.

Much like my architect, I use a basic three-step approach that works for any system implementation project. In the first step, called "define," I deal with the people and political issues. I get the executive sponsors to state clearly what they want and what the performance requirements are that the system must meet. Then we agree on a conceptual or high-level design for a system that meets these requirements. I estimate what it will cost, and if the sponsors decide that the benefits of the system still outweigh the costs, then the project moves on to the next step.

That's "design," when the process issues are worked out. Business people who will use the system work with technical people who will build it. We figure out new workflows and ways to use the technology to meet performance requirements. If business and technical people are still talking to one another and smiling at the end of this step, it means we have produced a good (or good enough) design that will get the job done.

"Build" is the biggest and most expensive step but actually the least risky. If the first two steps were done well, I have the most control here. Problems will arise, but they will be technical, not political or procedural. Technical problems have technical answers. They are easy compared with political and procedural problems.

The main reason why people hesitate to follow this approach is that they think it will become too time-consuming or bureaucratic. I respond by showing them how each step gets work done quickly by using appropriate combinations of a small set of techniques. I'll talk about those techniques next month. And I'll let you know how my house remodeling is coming. If I follow my own advice, it should be doing well. **53370**

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READERS' LETTERS

Microsoft Keeps Using FUD Against Linux

THE ARTICLE "Microsoft Tries New Pitch to Curb Linux Use" [QuickLink 52567] states that Microsoft is attempting to sway users away from Linux by spotlighting the need for strong intellectual-property protection. FUD, FUD and more FUD; it is what Microsoft does best.

The first thing that IT managers and CEOs have to ask is, Where does the threat lie? From SCO? On the surface, yes. But anyone has to seriously doubt that there is any substance to SCO's case against IBM at all. Although *Computerworld* and other publications characterized the ruling not to grant summary judgment as a win for SCO, in fact IBM won 90% of the motion for summary judgment. If it were not for the judge's forbearance, the case would be over, and he said as much.

So, what is really going on here? A veiled threat from Microsoft, improperly wielding its market dominance once again. Steve Ballmer tried this recently in Asia, directing the threat toward national and local government entities. The next week, Beijing announced that the city government wouldn't renew its Microsoft license and would switch to Linux. Microsoft needs more of the same. Better yet, switch to Apple. Better hardware, better operating system, better use of open-source and no threat of litigation from SCO or Microsoft.

Daniel Reiss
President and CEO, Automated Terminal Systems Inc., Washington, atysusua@earthlink.net

Dude, You Got H-1B Practices Wrong

IN PAT THIBODEAU'S interview with N. Sivakumar, the author of *Dude, Did I Steal Your Job?* [QuickLink 52816], Sivakumar is quoted as saying, "An H-1B worker should not replace an American worker. I totally agree with that. That's ethically wrong, lawfully wrong – it's wrong from any angle. If anyone is doing that, they should be punished." To which I offer this lighthearted correction: Dude, you got it wrong.

Many of us would strongly agree with his argument that H-1B workers shouldn't replace American workers. However, there are no provisions in the H-1B sections of immigration regulations that require companies to first hire Americans or that would prevent companies from displacing American workers. Companies that replaced Americans did so in full compliance with the law. Unfortunately, it is a common misconception that American workers are somehow protected from this practice.

Nate Viall
President, NVAA, Des Moines

Try for Real Variety

IT'S AMAZING how the panel of experts gathered for *Computerworld*'s report on the future of IT ["The View(s) Ahead," QuickLink 52738], defined as "a diverse group," didn't include a single person of Asian, Middle Eastern or African descent, nor did it include a woman.

When bringing together a group of "academics, researchers, analysts and CIOs," *Computerworld* may find it interesting to expand its horizons beyond males of European descent. And its readers may appreciate the intellectual variety.

SC Karmanoff
Principal, KEMS, Royal Oak, Mich.

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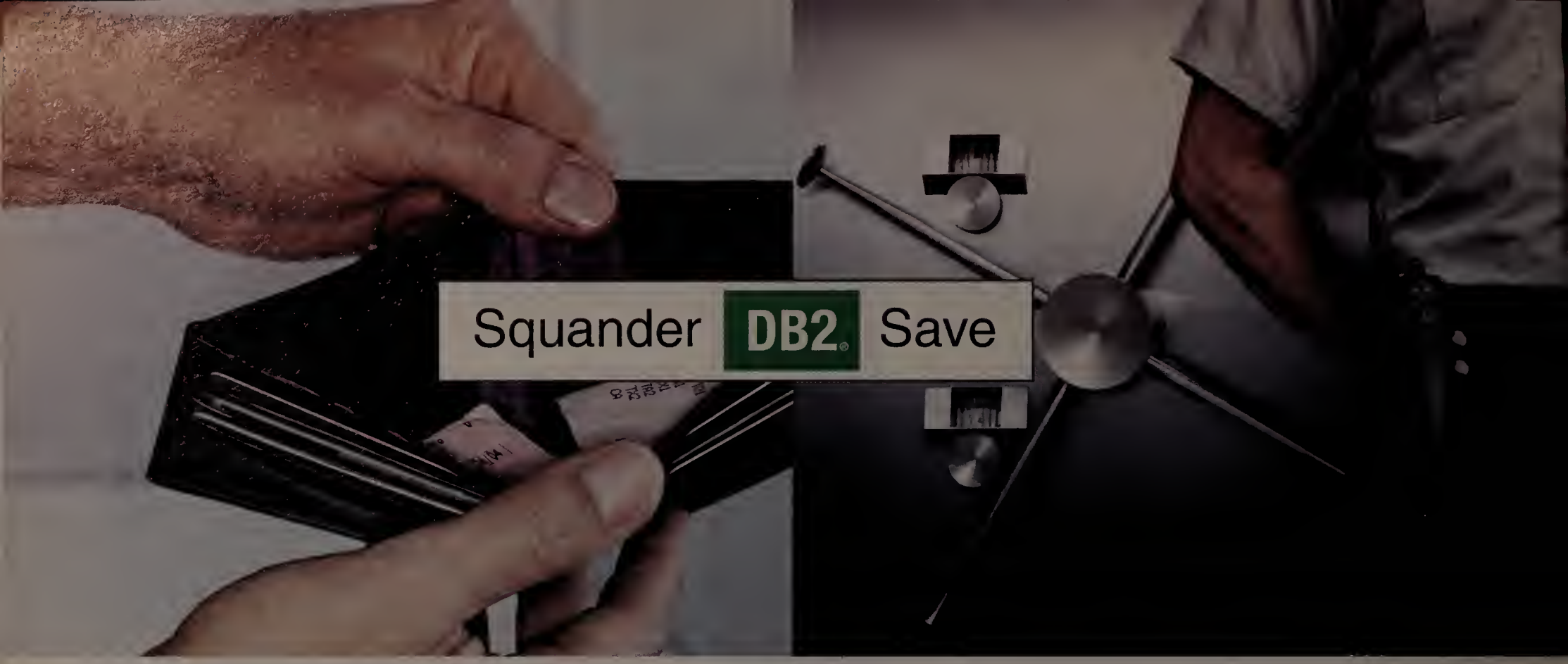

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QUICKSTUDY

Biometric Authentication

A look at the technologies that can be used to verify a user's identity by means of a physical trait or behavioral characteristic that can't easily be changed, such as a fingerprint. **Page 26**

SECURITY MANAGER'S JOURNAL

Downtime Becomes Documentation Time

Mathias Thurman takes advantage of a lull in the usually hectic pace to catch up on some important stuff — documenting the things that were done earlier. **Page 28**

OPINION

Joining the Federation

Mark Willoughby says federation may a trendy linguistic reinvention, but its ramifications for identity and networks are still important to IT. **Page 30**

HARRY CAMPBELL

INVASION OF THE iSCSI ARRAYS

As the technology has matured, IP-based storage arrays have established a beachhead as the preferred low-end SAN option.

BY ROBERT L. MITCHELL

WHEN JIM TARALA oversaw the rebuilding of his firm's network and IT infrastructure last year, he never dreamed he'd throw out his Fibre Channel SAN in favor of IP-based networked storage. The savings, however, were just too large to ignore.

Tarala, CIO and chief technology officer at Schenck Business Solutions, a 500-partner accounting firm in Milwaukee, was comfortable with his EMC Clariion storage system, but it was running out of space. Tarala also wanted to eliminate direct-attached storage on his mySQL and Microsoft Exchange Server systems in favor of networked storage. He decided to replace the entire system but initially dismissed the idea of using IP storage-area networks (SAN) — systems that use the iSCSI protocol to allow servers to access stored data over an IP network — rather than direct-attached or Fibre Channel arrays. "I wasn't comfortable with the overall architecture," Tarala says.

Then he discovered that replacing the aging FC700 with a 1.5TB system would cost more than $90,000, while a 2.5TB iSCSI-based PS Series system from EqualLogic Inc. in Nashua, N.H., would cost just $47,000. Schenck gave Fibre Channel the boot. Tarala now has three PS Series systems with more than 7TB of capacity that support 12 servers.

"I spent half of what I budgeted, doubled my capacity, and it performed flawlessly," he says.

More than two years after the iSCSI protocol was ratified as an Internet Engineering Task Force standard, early adopters say IP SANs are not only ready for production deployments but also offer an alternative to Fibre Channel for low-end and midrange storage. Performance and reliability of iSCSI arrays have improved, and iSCSI SANs are significantly less expensive to set up and manage than Fibre Channel SANs, users say.

The high costs of traditional SANs have restricted the technology to mostly first- and second-tier data center applications. Now storage administrators are setting their sights on iSCSI as an alternative for some second-tier applications.

A Second Wave

And a second wave of storage consolidations is already under way: Administrators are replacing direct-attached storage used in departmental servers with local, iSCSI SANs. Robert Gray, an analyst at IDC, says the strongest growth is coming from large companies, which have huge numbers of departmental servers that can benefit from consolidating storage.

Early misgivings about iSCSI's capabilities have faded. Tarala was wary of the performance and reliability of the Serial ATA (SATA) drives used in EqualLogic's system but says the new SAN's performance has been comparable to the system he retired.

The new storage system is also more efficient to run. Because the SAN is IP-based, Tarala's Windows

server administrators can manage it.

"You don't have to wait to bring in an outside technician to check that the [Clariion] tuned the array," he says. And moving from direct-attached to networked storage has improved staff productivity. "Everything boots from the SAN, and they can bring up a new Windows 2003 server in 20 minutes," Tarala says.

Until recently, the major SAN vendors were reluctant to release iSCSI products, citing maturity issues and server CPU performance bottlenecks that might arise in processing traffic associated with iSCSI and the chatty TCP/IP protocol. But thanks in part to faster processors, that bottleneck never materialized for Tier 2 applications.

Smaller Vendors Lead

Smaller vendors, such as EqualLogic, StoneFly Networks Inc. in San Diego and Intransa Inc. in San Jose, have taken the lead in offering iSCSI target storage, while larger players such as EMC Corp. have offered iSCSI ports on Fibre Channel SANs and multiprotocol switches.

But native iSCSI storage arrays are less expensive, and early buyers are deploying them to support e-mail and database servers, backup and other departmental applications that don't require the high I/O that Fibre Channel delivers — and that won't support the cost of Fibre Channel SAN switches and host adapters.

Now Tier 1 vendors are jumping in. IBM, which withdrew an early iSCSI array, has returned to the market with the TotalStorage DS300. EMC recently announced new Clariion AX and CS Series models that offer native iSCSI connectivity to Fibre Channel, parallel ATA or SATA disk arrays. Every major vendor will have a native iSCSI SAN offering by year's end, says Gray.

That's important to users such as Robert Stevenson, a technology strategist at Nielsen Media Research Inc. in New York. "Initially, we were very cautious about moving into the iSCSI space [because] the larger players were dismissive of it," he says. But like Tarala, he found the cost and manageability benefits outweighed his initial concerns.

Stevenson started last year with an IP5000 iSCSI target array from Intransa to support a virtual tape library application, then he added another unit to house small Sybase Inc. databases that sit behind Nielsen's TV ratings system applications.

A third IP SAN from EqualLogic is in the lab as part of a project to host a larger data warehouse. At about $3 per gigabyte, storage on the Intransa system is "very economically compelling," Stevenson says.

With more than 10TB on iSCSI-based storage, Stevenson's biggest concern now is rolling administration of those systems into the storage resource management tools that control the rest of his 1.2 petabytes of networked storage. Unfortunately, his current tools don't fully support iSCSI.

Management of iSCSI SAN systems has trailed behind hardware and infrastructure development, and standards like the Storage Networking Industry Association's (SNIA) Storage Management Interface Specification have yet to catch up.

Support for mixed environments like the one Stevenson is considering are an even bigger challenge. "How do I manage an end-to-end environment when the iSCSI host may be several hops away on a Gigabit Ethernet switch or IP router and the proxy Fibre Channel target is on the other side of a multiswitch SAN?" he says.

But those concerns aren't stopping users from creating stand-alone IP SANs to target specific applications. For example, Siemens Corporate Research Inc. in Princeton, N.J., added an iSCSI interface to its Network Appliance Inc. filer to back up its IBM Rational ClearCase change management software. ClearCase wanted to issue block-writes to direct-attached disks; an iSCSI interface allowed the storage to be migrated to the filer, where it could be backed up using NetApp's Snapshot technology.

"The entire [800GB] backup takes less than two minutes," says Ramesh Viswanathan, director of computer and network administration. Adding iSCSI support required a simple, free download from NetApp. "We didn't have to invest in new hardware," he says.

Bruce Waslie says moving a SQL Server database on an IP SAN can reduce administrator headaches. Last summer, a rapidly growing SQL database that served an imaging application hit 90% of capacity, says Waslie, senior systems engineer at Koch Logistics, a transportation and distribution services provider in St. Paul, Minn. Expanding the direct-attached arrays was sometimes problematic and required taking the system down after hours.

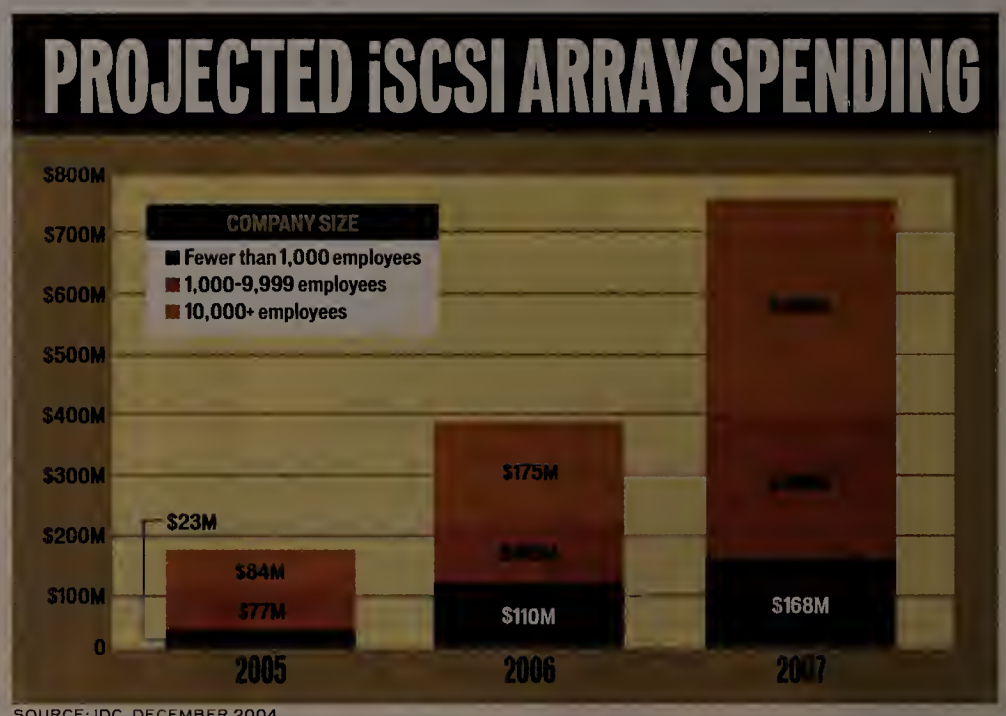
Waslie moved the data onto three iSCSI-based Network Storage Module 150 appliances from LeftHand Networks Inc. in Boulder, Colo. "The last time I had to expand [storage], I did it in minutes — and I didn't have to come in on a Sunday," he says.

Still, experienced users have other reservations about IP-based storage — especially with regard to the IP network. Waslie isolated his IP SAN traffic on a physically separate network for security and to allow for out-of-band management.

Stevenson says project planners should make sure sufficient bandwidth is available on the existing network before adding iSCSI traffic. And adding IP SAN devices, which require static IP addresses, also increases complexity. "These static IP connection points make it very different to upgrade the storage frames in a heterogeneous environment," he says.

While iSCSI is gaining ground for backups and second-tier applications, Stevenson already envisions using IP SANs for a more mission-critical application at Nielsen. His group wants to create a copy of a 40TB data warehouse for the development team, but without spending $4 million on a Fibre Channel SAN. "You can get cheap blade servers and get iSCSI to them and put it on SATA [disk arrays], and you've got low cost," he says.

As Nielsen eventually migrates to 10 Gigabit Ethernet, Stevenson expects IP SANs to move still higher into his tiered storage architecture. Even today, he says, "it tends to perform at a higher tier than you would think." **53298**



SOURCE: IDC, DECEMBER 2004

IP SAN SPECS AND STANDARDS

AT A GLANCE

iSNS: The Internet Storage Name Service, currently an IETF draft standard, provides for both automated discovery and authentication support for iSCSI devices. The standard is expected to be finalized this year.

SMI-S: The Storage Management Interface Specification is a SNIA initiative to develop a common management interface for storage networks. SNIA's work is being standardized through the InterNational Committee for Information Technology Standards. Support for iSCSI within the SMI-S specification is still evolving.

MPIO: Microsoft Corp.'s multipath I/O technology enables multipathing for Windows hosts attached to iSCSI or Fibre Channel SANs. MPIO can be used to facilitate fail-over or load balancing. A new feature in Version 2 of Microsoft's iSCSI initiator for Windows, MPIO is likely to become the de facto standard for providing multiple communication paths between Windows hosts and IP SANs.

VDS: Virtual Disk Services is Microsoft's tool for managing heterogeneous storage systems for Windows systems. The current version supports only Fibre Channel, but VDS 1.1 will also support iSCSI. It will be released in mid-2005, six weeks after Service Pack 1 for Windows Server 2003 ships, says Microsoft.

– Robert L. Mitchell

MICROSOFT'S ROLE

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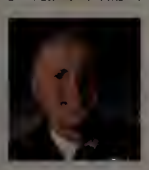

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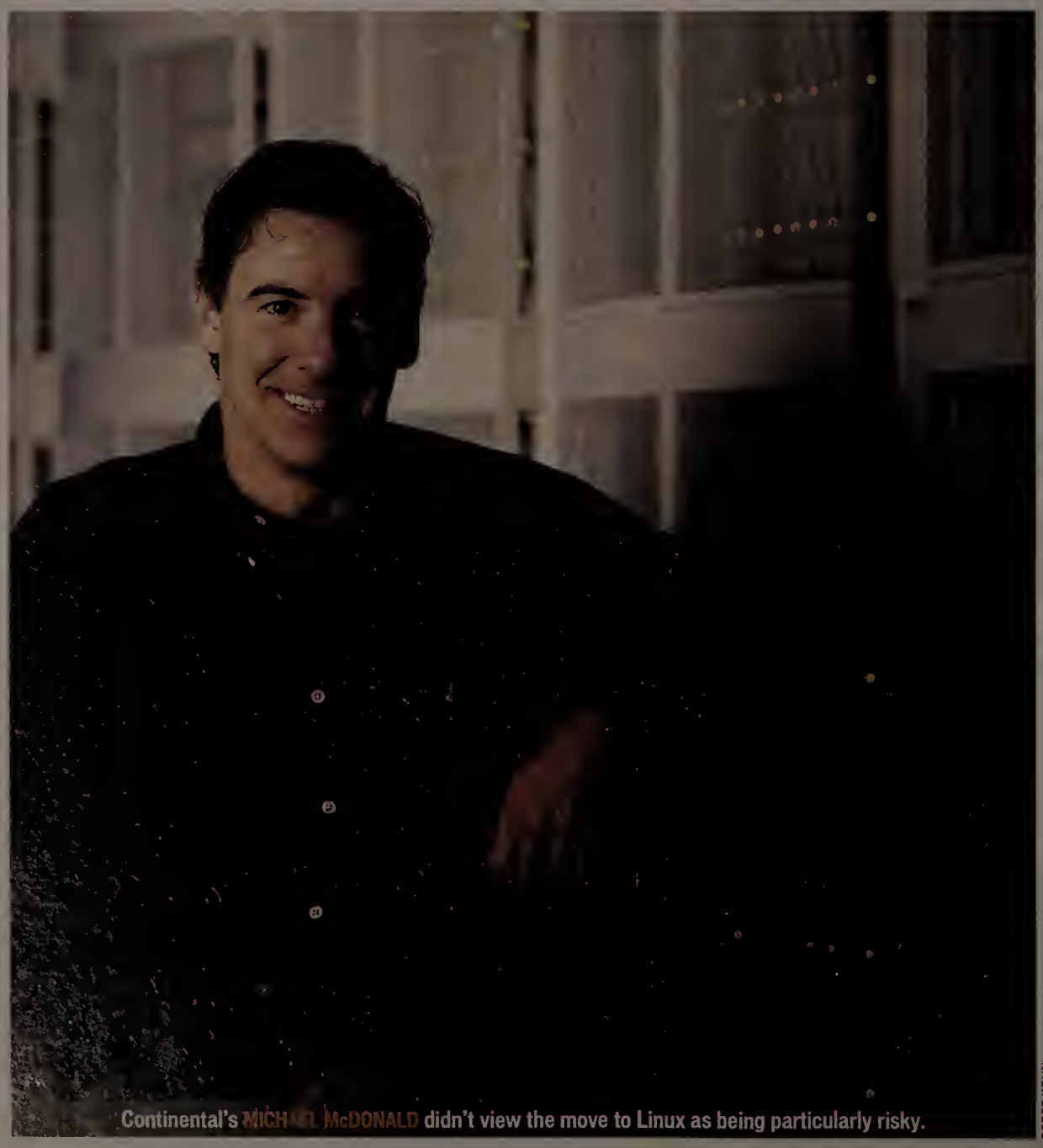
Open Ticket FOR CONTINENTAL



Continental's MICHAEL McDONALD didn't view the move to Linux as being particularly risky.

SCOTT KOHN

Continental Airlines pushed the envelope when it moved its automated ticket-reissue application to an open-source software stack that included a 64-bit MySQL database server. By Carol Sliwa

CONTINENTAL AIRLINES INC. encountered a bit of turbulence last year when it decided to shift the ticket-reissue application it had built for Unix-based servers to a full open-source software stack with a 64-bit database server.

There were no 64-bit editions of some of the key drivers and software products that the Houston-based airline needed for the application. So developers had to trek to Hewlett-Packard Co.'s service center to test and certify the drivers to run in 32-bit native mode on the 64-bit HP Linux systems.

Continental had to launch the application in September with the MySQL database servers in 32-bit mode and wait about five months for the 64-bit edition of HP's Serviceguard for Linux, which would provide the high availability it wanted. Within the next three weeks, the company expects to move its clustered 64-bit database servers from the lab to production, says Michael McDonald, director of technology.

Even before that happens, the application has been paying dividends on the open-source stack. A ticket-reissuing process that once took highly experienced agents an average of 20 minutes to complete can now be performed by customers visiting Continental's Web site. Later this year, customers will be able to access the application through self-service airport kiosks.

Moving from an ad hoc manual process to the Unix-based application running on 450-MHz HP NonStop servers initially cut the average transaction time to 15 seconds. Switching last September to faster Opteron-based HP servers for the database and Xeon-based boxes for the application and Web servers, all running on Linux, sliced the time to two seconds, according to McDonald.

Although the airline's approach may not be entirely unique, it's hardly commonplace among well-established corporations. In an IDC poll of Linux users released last July, just 27% of the respondents said they run databases on Linux. And with Continental, it's not only a database but also will be a 64-bit MySQL database running on Linux.

"They're leading-edge. You're not even talking about hundreds of companies that are using 64-bit MySQL," says Gartner Inc. analyst Donald Feinberg.

In comparison, the Apache Web server and JBoss application server that Continental selected are far more popular choices. Meta Group Inc. analyst Thomas Murphy says many of his clients are deciding they don't need or want all of the J2EE technology and are opting for open-source stacks that are faster to develop on and to deploy.

But the use of a full open-source stack tends to be less prevalent in corporate IT development shops, according to Daryl Plummer, a Gartner analyst. "There

are a lot more successes for people who have adopted parts of the open-source stack," he says. "It's usually more for fringe or Web applications, but it's moving more and more toward the critical ones every day."

Becoming Mission-Critical

Continental's ticket-reissue application didn't start out as mission-critical. After all, it didn't even exist when the development team started the project. But the application now provides an audit trail for $400,000 in ticket reissues per day, according to Michael Natale, the airline's chief technology officer.

Natale says the application also gives customers a consistent price, whether they use it through the Web site or call an agent who accesses a custom version of the application through a PC.

If Continental had taken the traditional approach, it would have developed the application for its mainframe-class IBM Transaction Processing Facility (TPF) system using assembler code and made the application available only to agents using green-screen terminals. Instead, the project team wrote the application using Java technology, knowing that it would work well with the company's Unix platform and afford more options at the presentation layer.

The developers initially wrote the application for the built-in software stack of HP NonStop servers but soon found that the package was "overkill" for their needs, Natale says. "The total cost of ownership didn't warrant keeping it on that [proprietary] platform when the same availability and uptime were available with open-source technologies," he says. "We're an airline in an industry with tough, lean times right now, so we're trying to do things as efficiently as possible."

Continental's developers had also found the 450-MHz processors to be "a handicap" for running the Java code, says McDonald. "Java relies on the speed of the processors to execute the code base," he says. "The faster the processor, obviously, the faster your code's going to execute."

Swapping out the proprietary database, application and Web servers for open-source alternatives running on Linux went smoothly. And with support from HP and Red Hat Inc., McDonald didn't view the Linux decision as particularly risky. He says he had already witnessed continuous uptime of as long as 300 days while running Linux on development machines.

"The platform is mature enough now for enterprise applications," Natale says.

Continental now runs 10 dual-processor HP blade servers for the application and Web servers, and a hardware device load-balances them. Running on the cheaper commodity blades allows the company more flexibility to expand its server farm if transaction volume starts to spike. The IT department merely needs to plug in a server and run a script to install Linux, JBoss, Apache and the application. "It's ready to go in under four minutes," says McDonald.

For the database servers, Continental needed more-powerful boxes and opted for three quad-processor HP ProLiant servers, with the vendor's Serviceguard for Linux for high availability. "We assume that whenever the application server's available that the database should always be there," McDonald says.

Continental uses the database for persistence, through objects stored in the server. When a client makes a request, business logic at the application server level takes over and calls the database. The database, in turn, makes an average of 20 calls to the TPF system to retrieve the information.

A price is formulated and displayed to the customer. No additional processing is needed, regardless of whether the customer accepts or rejects the price, since Continental simply reads the state of the object from the database, McDonald notes. Changes are then committed to the TPF system, and the ticket is reissued. Or, if the customer has rejected the price, notations are made in the TPF records.

Plans call for the next iteration of the application to be able to calculate refunds. Developers will merely extend the current application architecture to do so, McDonald says.

By then, Continental hopes to have resolved a prickly issue over pricing with Electronic Data Systems Corp., which manages its data centers. EDS wants to view the quad-processor database servers as midrange boxes, and Continental thinks they should be viewed more like Windows servers on commodity hardware.

"The more Linux systems that you get into your data center, the less it costs per server to maintain," McDonald says. "Once you pass a certain point, the cost per server goes down tremendously. So it's just a matter of time before you get enough servers in the data center to make it economically feasible."

Finding More Uses for Linux

But the pricing debate isn't stopping Continental from expanding its Linux environment. A "flight farming" project running on open-source software polls the ticket database to pull out duplicate passenger-name records, Natale says.

Continental and EDS are also in the process of partitioning the TPF mainframe and moving some subsystems to a distributed environment of cheaper commodity Linux servers, McDonald says. The subsystems include pricing, scheduling and seat inventory.

"The TPF systems have been taxed out so much in the last few years that we're running out of capacity on some of those mainframes," McDonald says. "You have to move some of that off [the mainframe], or at least distribute it."

Continental is following the lead of companies such as Sabre Holdings Corp. and Cendant Corp., which have already moved some processing off their mainframes. With so many customers shopping for the best fares on Web sites, travel providers are looking for more cost-effective ways to provide those services.

"It's free for people sitting in their living rooms to click around," McDonald says, "but somebody has to pay the price for those transactions — and it's us."

Money-generating transactions, such as booking and ticketing, remain on Continental's tried-and-true mainframes.

Even though the more stable 2.6 Linux kernel is now supported by the most popular commercial Linux distributions from Red Hat and Novell Inc., many companies remain cautious about migrating important systems to the open-source operating system.

Gary Hein, an analyst at Burton Group, says clients tell him, "What's the motivation for me to put my neck on the line, when Oracle on Solaris is the core of my business and it functions just perfectly?" But he also finds that once users have a good experience, they're more inclined to take the plunge again.

"Success breeds success," Hein says. "They're hesitant to do the first one. But after they do, they say, 'Wow. That's hard not to do.' " 53189

Continental
DOWN TO THE HARDWARE

PRESENTATION LAYER

JavaServer Pages produced by the JBoss application server are delivered to the Web servers, which display the information to end users in HTML. JSP also deliver content to agent terminals via the Airline Link Control protocol.

MIDDLE TIER

Software: JBoss application servers running on Red Hat Linux

Hardware: 10 dual-processor HP blade servers with 2.8-GHz Intel Xeon processors

BACK END

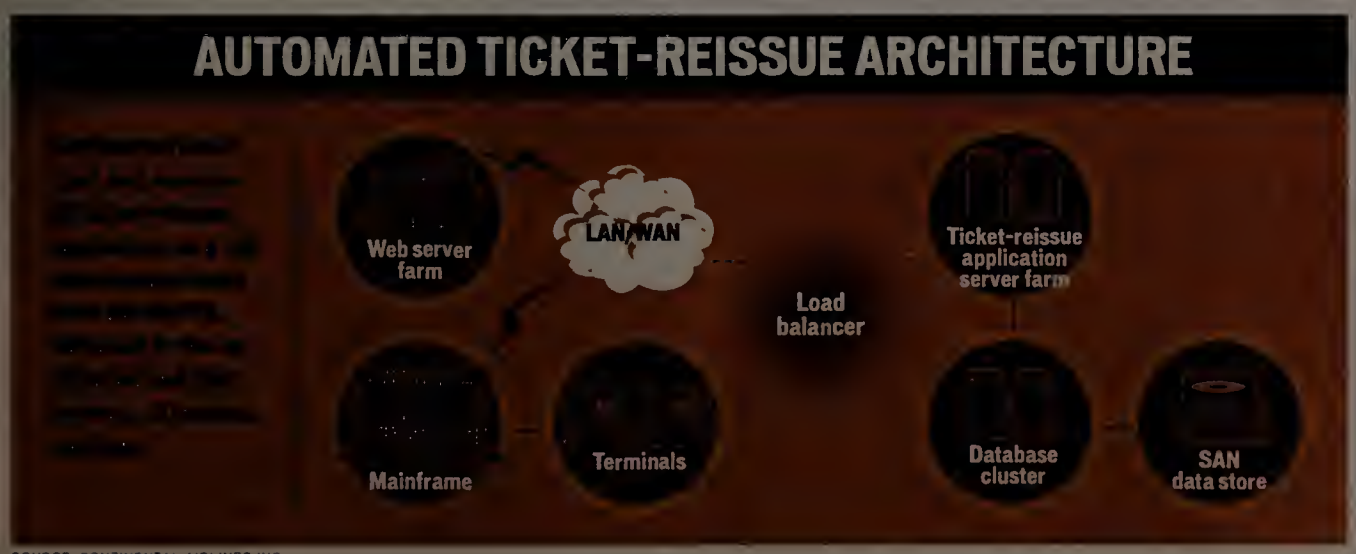
Software: MySQL database servers running on Red Hat Linux, HP's Serviceguard for Linux cluster kit.

Hardware. Three quad-processor HP ProLiant DL585 servers with 2.2-GHz Opteron processors from Advanced Micro Devices Inc.

Storage: HP StorageWorks Enterprise Virtual Array 3000

"A large portion of our operational database is loaded into memory," says Michael McDonald, director of technology. "We seldom have to go back and read and write to the SAN."

AUTOMATED TICKET-REISSUE ARCHITECTURE



SOURCE: CONTINENTAL AIRLINES INC.

Biometric Authentication

DEFINITION

Biometric authentication is the verification of a user's identity by means of a physical trait or behavioral characteristic that can't easily be changed, such as a fingerprint.

BY RUSSELL KAY

IN THIS COMPUTER-driven era, identity theft and the loss or disclosure of data and related intellectual property are growing problems. We each have multiple accounts and use multiple passwords on an ever-increasing number of computers and Web sites. Maintaining and managing access while protecting both the user's identity and the computer's data and systems has become increasingly difficult. Central to all security is the concept of authentication — verifying that the user is who he claims to be.

QUICK STUDY

We can authenticate an identity in three ways: by something the user knows (such as a password or personal identification number), something the user has (a security token or smart card) or something the user is (a physical characteristic, such as a fingerprint, called a biometric). (For more on authentication, go to QuickLink a5630.)

All three authentication mechanisms have drawbacks, so security experts routinely recommend using two separate mechanisms, a process called two-factor authentication. But implementing two-factor authentication requires expensive hardware and infrastructure changes. Therefore, security has most often been left to just a single authentication method.

Passwords are cheap, but most implementations offer little real security. Managing multiple passwords for different systems is a nightmare, requiring users to maintain lists of passwords and systems that are inevitably written down because they can't remember them. The short answer, talked about for decades but rarely achieved in practice, is the idea of single sign-on. [QuickLink a5640].

Using security tokens or smart cards requires more expense, more infrastructure support and specialized hardware. Still, these used to be a lot cheaper than biometric devices and, when used with a PIN or password, offer acceptable levels of security, if not always convenience.

Biometric authentication has been widely regarded as the most foolproof — or at least the hardest to forge or spoof. Since the early 1980s, systems of identification and authentication based on physical characteristics have been available to enterprise IT. These biometric systems were slow, intrusive and expensive, but because they were mainly used for guarding mainframe access or restricting physical entry to relatively few users, they proved workable in some high-security situations. Twenty years later, computers are much faster and cheaper than ever. This, plus new, inexpensive hardware, has renewed interest in biometrics.

Types of Biometrics

A number of biometric methods have been introduced over the years, but few have gained wide acceptance.

Signature dynamics. Based on an individual's signature, but considered unforgeable because what is recorded isn't the final image but how it is produced — i.e., differences in pressure and writing speed at various points in the signature.

Typing patterns. Similar to signature dynamics but extended to the keyboard, recognizing not just a password that is typed in but the intervals between characters and the overall speeds and pattern. This is akin to the way World War II intelligence analysts could recognize a specific covert agent's radio transmissions by his "hand" — the way he used the telegraph key.

Eye scans. This favorite of spy movies and novels presents its own problems. The hardware is expensive and specialized, and using it is slow and inconvenient and may make users uneasy.

In fact, two parts of the eye can be scanned, using different technologies: the retina and the iris.

Fingerprint recognition. Everyone knows fingerprints are unique. They are also readily accessible and require little physical space either for the reading hardware or the stored data.

Hand or palm geometry. We're used to fingerprints but seldom think of an entire hand as an individual identifier. This method relies on devices that measure the length and angles of individual fingers. Although more user-friendly than retinal scans, it's still cumbersome.

Voice recognition. This is different from speech recognition. The idea is to verify the individual speaker against a stored voice pattern, not to understand what is being said.

Facial recognition. Uses distinctive facial features, including upper outlines of eye sockets, areas around cheekbones, the sides of the mouth and the location of the nose and eyes. Most technologies avoid areas of the face near the hairline so that hairstyle changes won't affect recognition.

The Current Leader

Because of its convenience and ease of use, fingerprint authentication is becoming the biometric technology of widest choice. A growing number of notebook PCs and computer peripherals are coming to market with built-in fingerprint readers. Scores of products are available, including keyboards, mice, external hard drives, USB flash drives and readers built into PC card and USB plug-in devices. Most of these units are relatively inexpensive.

These devices allow the user to maintain encrypted passwords that don't need to be remembered but instead are invoked after the user puts his finger on the reader. This can also be used with a separate PIN or password to offer true two-factor authentication.

53319

POPULAR, BUT NOT FOOLPROOF

FOR ALL THE SECURITY that biometric authentication appears to offer at first glance, it's not foolproof. For example, fingerprint readers can be fooled more easily than one might imagine. Japanese cryptographer Tsutomu Matsumoto at Yokohama National University found that by making molds out of gelatin (the stuff of Gummi Bears) he could reproduce a fingerprint that would fool 80% of commercial readers. Worse, fingerprints on surfaces could be photographed, enhanced and etched onto circuit-board material, from which a gelatin mold could then be made; these also worked about 80% of the time.

There's one other problem with fingerprints and, indeed, most biometric authentication techniques: If a registered fingerprint (or eyeball, or whatever) is compromised – if someone succeeds in forging or spoofing it – you can't just change it like you would a password. You could use another finger, or your other eye, but there are clearly limits as to how many options you have. This makes the case for two- or three-factor authentication even stronger.

– *Russell Kay*

Fingerprint scanners are convenient, but some Japanese security researchers have shown that they're fairly easy to fool.

Kay is a Computerworld *contributing writer in Worcester, Mass. Contact him at russkay@charter.net.*

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HACKERS, VIRUSES, AND WORMS

ARE MET WITH SWIFT AND DECISIVE ACTION

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Downtime Becomes Documentation Time

Our security manager takes advantage of a lull in the usual hectic pace to catch up on some important stuff. By Mathias Thurman

SECURITY MANAGER'S JOURNAL

THE PAST WEEK wasn't extremely insane for a change, so I focused on completing some much-needed documentation and organization of some of our recent activities. The first area I tackled was the ongoing and tiresome Sarbanes-Oxley project.

At this point in this seemingly never-ending initiative, all of the IT security controls have been identified, tested, remediated and, most importantly, automated and made repeatable. Those last two items are key, since having automated and repeatable processes will save us time when we have to demonstrate compliance with Sarbanes-Oxley Act mandates again. In addition, having automated and repeatable processes will help with any other audits or attestations that we may be responsible for, since other regulations will most likely encompass the same activities covered by Sarbanes-Oxley.

Now it's just a matter of putting together some documentation about the processes so that in years to come we can quickly produce the information needed to ensure continued compliance. I'll explain with a couple of examples.

Following the Rules

During the IT security portion of our Sarbanes-Oxley project, dozens of control objectives were identified, and we came up with repeatable methods to test against those controls. One control that we identified involves ensuring that users are restricted from logging into an "in-scope" Unix system directly as root. The proper method for gaining root-level access is to log in with an assigned user account and SecurID token and then issue the "switch user" (SU) command to gain root-level access.

But there are always people who seem to be either too lazy or too inconvenienced to follow these rules. Yes, our Unix systems are configured to deny direct root log-ins, but console servers are attached to each system for emergency access in the event that an interface goes down and an administrator needs to troubleshoot. The need to provide such emergency access is real, especially in remote data centers, but the console access provides a user with root- or administrator-level privileges.

Whenever an administrator accesses the system, though, logs are generated that identify the method of access and the use of SU to gain root-level access. Part of the Sarbanes-Oxley control objective states that these logs are to be regularly reviewed in order to monitor methods of access.

The documentation I created discusses the responsibility, frequency, location and methodology of reviewing those logs. Eventually, we will put some technical controls in place so that we won't have to review logs manually, but for now, this activity satisfies that particular control objective.

> **Although a lot of documentation ends up on a shelf, it can be worth its weight in gold.**

Another example: We have written scripts that check for modifications of configuration files, the presence of unauthorized files, unauthorized entries in certain files or other changes that may cause a departure from our defined security baseline and the controls identified as part of the Sarbanes-Oxley audit. But when creating these scripts, we never took the time to fully document the procedures, the locations of scripts and other pertinent information. Although some notes were taken and some high-level explanations were provided to satisfy auditors, none of that reached the level of detailed documentation. So, over the past couple of weeks, I took the time to document the details. For each control objective, I annotated the particular script, the output, where results were stored and the method, frequency and annotation of the review of the results.

Document Safeguards

Over the years, I've created an abundance of documentation, ranging from policy to standards and guidelines. For the most part, these documents sit undisturbed on a shared drive or in a binder collecting dust. I'm sure that this Sarbanes-Oxley document will fall into that same category, but at least it's available in the event that auditors ask for it.

I spent the rest of the week documenting various aspects of our recent RSA SecurID deployment. First, I finished up the run books for the Web Express application. As I've mentioned before, we deployed RSA Web Express to aid in the deployment of SecurID tokens. Our IT department uses run books to annotate information needed to perform general day-to-day maintenance and to respond to emergencies such as service outages and performance problems. Typically, our run books contain information regarding hardware, software, the application, dependencies, points of contact, backups, fail-over instructions and so on. I hadn't taken the time to properly annotate the run books, so I spent a day completing that task. I also wrote an administrator's guide, a user's guide and a matching quick reference, or cheat sheets. It's always nice to provide a couple of formats for users and administrators who want only the steps and don't care to see illustrations or other details.

This step is critical, since properly annotated documentation will prevent an influx of help desk calls. I always take advantage of stressing a common help desk issue through mass communication versus forcing the users to call. Normally, I would have a technical writer at my disposal, but resources are tight these days, so we create documentation ourselves and pass it around within the department for readability and quality assurance purposes.

Although a lot of documentation ends up sitting on a shelf, I still feel that it can be worth its weight in gold, especially when employees with important knowledge leave the company or when we've forgotten details of an application that we installed and configured in the distant past. And while I'm on that topic, it's always a good idea to have a knowledge base available to annotate miscellaneous tips and tricks regarding applications in the environment.

Documentation is never an enjoyable activity, but at the end of the day, you'll generally be glad you did it.

WHAT DO YOU THINK?

This week's journal is written by a real security manager, "Mathias Thurman," whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com, or join the discussion in our forum: **QuickLink a1590**

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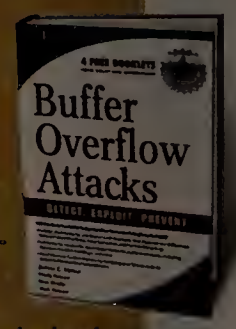
SECURITY LOG

Security Bookshelf

■ ***Buffer Overflow Attacks,*** **by James C. Foster, Vitaly Osipov and Nish Bhalla (Syngress, 2004).**



Every information security engineer should know about buffer overflow attacks and how to review code at a high level. Each chapter of this logically organized and informative book provides technical and in-depth but easily readable discussions of a major type of buffer overflow vulnerability. Several case studies put it all together by analyzing some popular exploits. Chapters end with frequently asked questions (which could be used as a quiz) and references to a multitude of related software and Web links. I will surely use this book as I conduct application assessments.

– Mathias Thurman

Group Tackles VoIP Security

A group formed to head off voice-over-IP security problems laid out its first set of priorities last week: setting up a taxonomy to classify threats and establishing the requirements for making VoIP secure. The VoIP Security Alliance, which was established in February, includes Verizon Communications Inc., VeriSign Inc. and about 50 other vendors and service providers.

Security at a Glance

Network Intelligence Corp. released a new version of its enVision security event management software that features a dashboard designed to let administrators see security and compliance status in real time. The dashboard presents information gathered and correlated from multiple security devices deployed on a network. It also lets administrators quickly drill down into specific compliance-related issues, the company said.

Find the tools and guidance you need for a well-guarded network at microsoft.com/security/IT

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- **Free Tools & Updates:** Download free software like Microsoft Baseline Security Analyzer 2.0 to verify that your systems are configured to maximize security. Manage software updates easily with Windows Server Update Services.
- **Microsoft Risk Assessment Tool:** Complete this free, Web-based self-assessment to help you evaluate your organization's security practices and identify areas for improvement.
- **Internet Security and Acceleration Server 2004:** Download the free 120-day trial version to evaluate how the advanced application-layer firewall, VPN, and Web cache solution can improve network security and performance.

Microsoft

BRIEFS

Azaleos Releases Exchange Appliance

■ Azaleos Corp. in Issaquah, Wash., last week launched a managed Exchange 2003 messaging appliance, the Azaleos OneServer, and the accompanying OneStop subscription service. The appliance integrates enterprise server hardware, specialized software and managed subscription services into a device that supports up to 2,500 user accounts, the company said. Pricing for the appliance starts at $35,000 and includes 1TB of storage; the OneStop subscription begins at $7 per month per user.

AmberPoint Unveils SOA Dashboards

■ AmberPoint Inc. has announced dashboards for its service-oriented architecture management software. The dashboards enable users to more precisely pinpoint trouble areas and pull data from a broader range of systems than they could previously, according to the Oakland, Calif.-based company. Pricing was not announced.

Nemonix Rolls Out Hardware for Alpha

■ Nemonix Engineering Inc. last week announced that it's making hardware for AlphaServer systems, which Hewlett-Packard Co. is retiring next year. The controller for the AlphaServer has two Gigabit Ethernet ports on a single PCI-X card and is priced at $899, according to the Holliston, Mass.-based company.

Informatica and Composite Partner

■ Informatica Corp. last week announced a development partnership with Composite Software Inc. in San Mateo, Calif. Under the agreement, Redwood City, Calif.-based Informatica will offer the Composite Information Server as a complement to its PowerCenter data integration platform.

MARK WILLOUGHBY

Joining the Federation

INFORMATION TECHNOLOGY, along with its cousin biotechnology, is a big driver of the dynamic lexicon. Biotechnologists usually coin words about biological things from thin air or revert to dusty Greek or Latin to introduce words into English. IT likes to recycle language, adding heft to the dictionary with new uses for old words.

The latest word to be reinvented by IT is *federation*. It describes technology unions relying on new forms of data integration. *Federation* languished for eons in the linguistic backwaters, competing with the likes of *league* and *union* to describe political liaisons, for better or for worse. Reinvented with a techno spin, it's now as hot as lofts in a gentrified warehouse district.

The movement to recast federation got its impetus with identity management around 2002. Various industry bodies like the Liberty Alliance and OASIS were drawing up standards to enable the joining of trusted networks into even larger chains of trust. Some technical thinker had a eureka moment and correlated a lesson from political history, *ergo* federated identities. Federated identities gave rise to federated networks. (If you are a purist, maybe that's backward.)

Federated networks are just getting started, but they will be huge in delivering authenticated and authorized users for secure e-commerce communities in the wired and wireless worlds. Secure users are key to streamlining supply and distribution chains for more efficient business. Federation in identity management has even morphed into a verb form: Federate now to put your islands of identity to work authorizing, controlling and logging your users' access for compliance with the Sarbanes-Oxley Act.

Federation quickly achieved rock-star status as a recycled word, joining *instance*, *image*, *parent and child*, *cache* and *bus* among the panoply of innocuous words blessed by technology with a new meaning. The word *federation* has become fecund and given rise to more federation — federated management, federated configurations, federated databases, federated directories, federation ad infinitum. Integrating discrete elements is passé; it simply won't do if one can federate and achieve a higher order of interoperability.

And making data structures interoperate more efficiently is the central theme underlying federation of all types. Virtual directories provide the foundation for enterprise information integration, or EII, a layer of abstraction to bring widely distributed and decentralized islands of data into a unified whole. Virtual directories were not invented to facilitate federated identities, but federated networks would be nowhere without virtual directory technologies, which unite islands of identity data into a centralized management framework for stronger security.

With virtual directories, there's no need to copy or replicate data into a central repository. The identity data can stay in its traditional repository in finance, human resources or building security, close to the owners of the information, who know best how to manage it.

Virtual directories create data about the data — metadata — that describes how to find the desired islands of information, how to convert the data in the islands into a desired format, how to read it into the target application and how to update the data once it has been used. Virtual directories save time and lots of money and prevent the endless arguments among federation members over who owns the information.

Identities and networks may have been the first to be federated, but they are no longer unique. Virtual directories and EII underlie a growing usage of federation. Federated management and federated configurations will be necessary to provide efficient and secure service management for layers of distributed infrastructure information.

Implementing new IT governance standards, such as the IT Infrastructure Library, will simply be impractical without federated information built on virtual directories. Federated databases will have metadata at the intersection, to describe where and how to read and write data from underlying data structures.

Federated data and EII will be big enablers of Web services, helping component applications to be deployed far more rapidly, without concern for data formats or locations. In just a few short years, we could have a new dictionary entry for *federation*, rooted in IT.

The smart people in biotechnology are going to have to come up with their own federation paradigm to solve their problems. They're going to have to develop federated biology — unified colonies of distributed and discrete information connected by a central nervous system for the greater good. That sounds like an ancient biological construct — the jellyfish. **53332**

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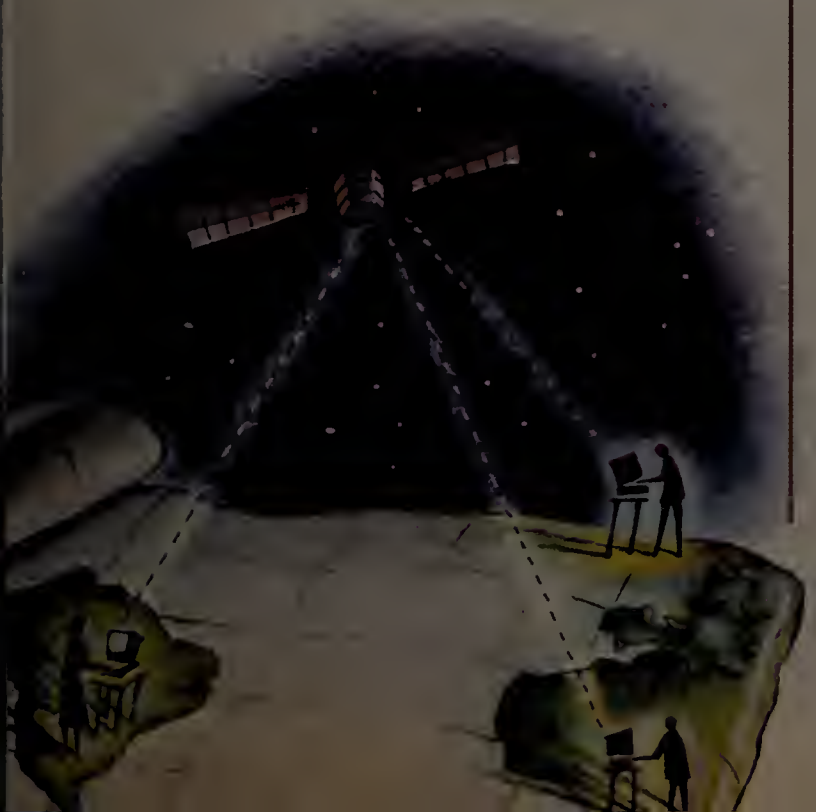


Achieving the Mobility Imperative: Enabling, Securing and Managing Wireless Broadband Access

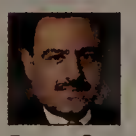
New York Marriott Marquis · April 26, 2005
Cantor Jolson Room, 9th Floor
1535 Broadway in Times Square, New York City

7:45am to 8:15am	Registration and Networking Breakfast
8:15am to 8:30am	**Introduction and Overview** Julia King, Executive Editor, Events, Computerworld
8:30am to 9:15am	**The Next Wireless Evolution** Iain Gillott, Founder, *i*Gillott Research
9:15am to 9:45am	**Deploying Wireless Broadband Technology: An IT Perspective** Phillip Hirschel, Cellular Services Manager, PriceWaterhouseCoopers
9:45am to 10:15am	Refreshment and Networking Break
10:15am to 10:45am	**Keynote Presentation: Broadband Wireless Solutions for the Enterprise** Roger Gurnani, CIO, Verizon Wireless
10:45am to 11:15am	**End-User Case Study** Larry Singer, SVP, Strategic Insight Officer, Sun Microsystems
11:15am to noon	**Panel Discussion: Real-World Wireless** Moderator: Julia King, Executive Editor, Events, Computerworld Panelists: Norm Fjedheim, SVP and CIO, Qualcomm David T. Phillips, Information Systems Manager, Foley, Inc. Jenkins Ravenel, Principal, Technology and Operations, Network Computing, Bank of America Joseph Ziskin, VP, Global Telecom Industry, IBM
Noon	Program Concludes

Selected speakers include:

Phillip Hirschel
Cellular Services Manager, PriceWaterhouseCoopers

Iain Gillott
Founder, iGillott Research



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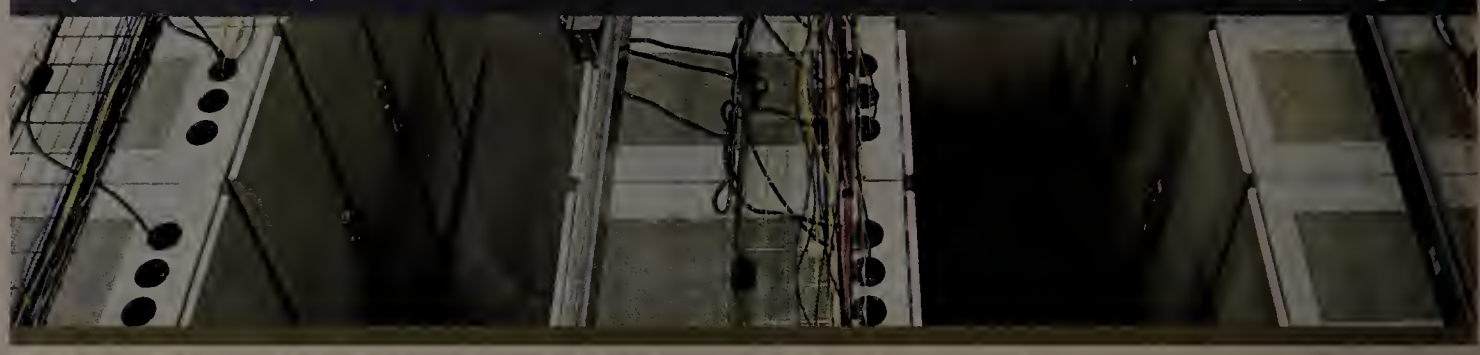

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MANAGEMENT

Think Tank

A computer forensics expert explains the role of CIOs in handling a data scandal; and research suggests that older workers have no problem adapting to new IT systems. **Page 36**

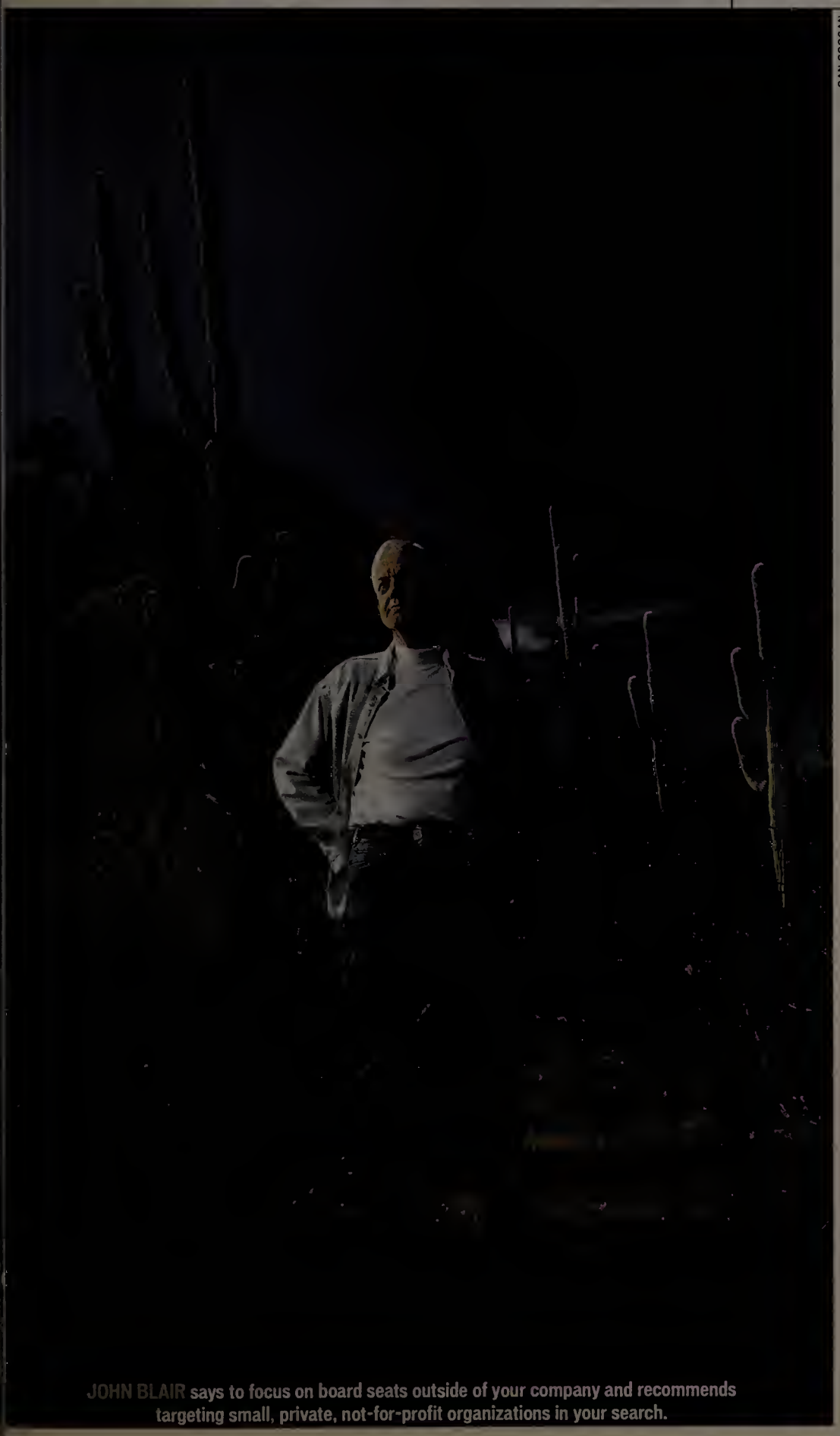
Just Say No

Sure, IT is supposed to be an enabler, but there are times when you have to refuse ill-advised business requests and hare-brained projects. Here's how to do it and survive. **Page 38**

OPINION

The Wages of Fear

Using fear as a management tool may have worked in Machiavelli's day, says Paul Glen, but think twice before you try it in IT. **Page 44**



JOHN BLAIR says to focus on board seats outside of your company and recommends targeting small, private, not-for-profit organizations in your search.

DAN COOGAN

So, You Want to Be ON THE Board

A former CIO and board member tells how to get a seat at the ultimate table. By John Blair

YOU SEE THESE gray-haired men and women heading into the boardroom once per quarter. Often, the CEO approaches you a few days before this happens and asks for a five-line briefing on one or two IT initiatives.

Last year, you were on the agenda to give a briefing on the CRM project, but it was late in the afternoon and everyone was distracted by the emerging requirements of something called Sarbanes-Oxley. Your 15-minute slot (far too brief) was shortened some more. Since only one question was asked, you were sure that making the afternoon flight was a higher priority to these gray hairs than what you had to say.

As more and more of the strategic issues your company faces have a direct or strong indirect IT component, the thought starts to form: "I should be on the board!"

That's probably not going to happen.

NOT MUCH ROOM. The numbers are against you, big time. First, if your employer is a larger public company (one of the roughly 9,000 companies listed on the major stock exchanges), by law the majority of directors must be outsiders. You are an insider.

The CEO thinks he should have one of the board seats. So does at least one other insider, and watchdog groups continue to pressure public companies to have fewer insiders on the board.

But you can improve your odds dramatically if you focus outside of your company and broaden your targets to include small ("microcap"), private and not-for profit organizations.

With that external focus and better odds, let's look at the makeup of a board.

BOARD MEMBER PROFILES. Status, connections and expertise all are factors. The ideal board member has strong general management skills and experience plus one or two areas of expertise not shared by the other board members. Diverse experience assures that the board will miss fewer nuances that could allow a small issue to become a large problem.

Many board members are current or former CEOs. Because of the requirement that at least one board member be financially literate, chief financial officers and former audit partners from the Big Four accounting firms are now being recruited. Other than that, the profiles vary widely: business "rock stars," lawyers, industry specialists, investors, representatives of special interest groups and friends of the CEO all show up to varying degrees.

Most new board members either have done something for the company or are expected to be able to do something for the company. For example, early in a company's life, board members with knowledge of and connections to funding sources, key regulators and potential clients are openly sought.

YOUR UNIQUE CONTRIBUTION. A recent *Computerworld* article estimated that only 5% of current board members have IT backgrounds [QuickLink 51548]. As an experienced and effective CIO, however, you bring special expertise to a board. Moreover, Section 404 of the Sarbanes-Oxley Act highlights the need for IT literacy on boards today. It requires that the controls for financial processes be effective. Many of these controls are implemented through the financial information systems and the applications that provide data to the financial information systems. So companies need a board member who can translate between IT and finance.

Sarbanes-Oxley is just the latest area where some specific IT skills are needed. Six years ago, the issue was Y2k. There will be more. Most issues today have a significant IT component, and effective board members who can translate between IT and business will continue to grow in importance.

MAKING IT HAPPEN. This is the hard part. Becoming a board member by building from an IT experience base isn't easy, because IT hasn't been a typical source of board candidates. If you really think you have a board-level contribution to make, start to make the moves to gain general management experience to complement your proven IT leadership experience.

That means if you have three to five years of experience running a significant, effective IT organization, plan to get out of IT. Look for places where you can leverage your experience as a CIO but in a general management context. There are a lot of technology companies that need senior managers with experience in the corporate IT function.

Another path is to launch your own company. As founder, you will gain experience in general management, and you will likely be a member of the board of the company.

MAKING IT HAPPEN, PART 2. OK, you're on the way: solid senior management experience in IT and a growing body of experience in senior-level general management. The next task you face is to become noticed by those who have the influence to place your name in front of board-member selection committees.

Who are these people?

Current board members and CEOs have the greatest influence on choosing new board members. Several of the major executive search firms have board-member search practices. Connecting with the partners who lead these practices will help. But where do they find candidates?

Current board members and CEOs.

Finding these people is also straightforward. The management of public companies is . . . public. Yahoo, EDGAR and corporate Web sites are ready sources for the names of company CEOs and directors. The Web sites for private and not-for-profit organizations typically list officers and directors. Growing Web services such as LinkedIn and Friendster are also valuable search tools. And be aware that organizations such as the Association for Corporate Growth, the National Association of Corporate Directors and many local business, networking and economic development groups have memberships with a large percentage of CEOs and directors.

Armed with a good list, start a multipronged campaign to meet some of these people. While the campaign to become a director has some of the elements of a job search, take a less direct approach and look for opportunities to work with your contacts. For instance, if you and your target are both members of a professional group, look for a way to work with him on a committee or a program.

The campaign usually takes a while and is built from a number of substantial joint interactions. Your goal is to be asked about your interest in a board role, not to do the asking.

It's said that any two people in the U.S. are, at the maximum, only four degrees of separation apart, so don't overlook the neighbors, the parents of your kids' friends and the aunt of the person you meet every now and then at the grocery store.

Each week take at least one action that will lead to an introduction to a current CEO or board member in a company that might find you to be a valuable board member in the next one to three years.

PATIENCE IS A VIRTUE. Be patient. It takes multiple exposures and firing at a lot of targets to raise the odds significantly. But Sarbanes-Oxley and the continued increase in the IT content of most markets, products and services mean that boards will need more members who can deal effectively with these issues. If you think you have something to contribute at the board level, start your campaign now. But realize that this may be the longest-duration project you ever manage. **53260**

Blair has been a board member of two public companies, two private companies and two not-for-profit organizations. He was CIO of two Honeywell divisions, COO of an IT professional services company and an adviser to corporate leadership on technology-related management issues. Contact him at john@jblairconsulting.com.

How It Worked For Me

My path to a board position with Apollo Group Inc. began 25 years ago when I was looking for some specialized training for a group of engineers on my staff.

A small, nontraditional university was able to respond, and that led to a friendship with the university president. Five years later, I was asked to join the university's board, in part because of my IT background.

Fifteen years passed, and the university was acquired by Apollo. Five more years passed, and I was invited to join Apollo's board.

My path to the board of a high-growth IT services company was a bit shorter, but it still took nearly 10 years.

It started when I assisted a consulting client in choosing an IT services company to develop a key business system. A year or two later, that IT services company became a consulting client. Seven years after that, I was invited to join the board of the then much larger and newly public IT services company. My unique contribution was, in part, the ability to speak about, listen to, understand, translate and advise on the very complex technology and business issues the company faced.

Two other board experiences came solely as a result of being a part of a network that included a number of entrepreneurs who were CEOs or on paths leading to CEO roles. In each case, the combination of skills and experience these entrepreneurs sought was the ability to effectively bridge the technology/business chasm.

– John Blair

FIGURING THE ODDS

John Blair says there may be more board seats available than you imagine:

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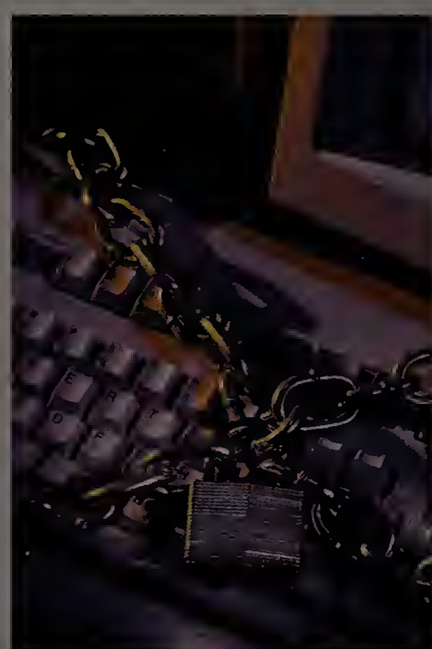
ThinkTank

BRAIN FOOD FOR IT EXECUTIVES

How to Handle A Data Scandal

TODAY'S CORPORATE SCANDALS typically involve accounting irregularities, data security disasters or potentially damaging e-mail messages. That means plenty of work for computer forensics experts such as Larry Leibrock, who digs into corporate information systems to answer the question "Who knew what when?"

Leibrock, chief technology officer at eForensics LLC in Austin, uses specialized hardware and software tools to copy a computer's contents, trace network paths and scan terabytes of data looking for key e-mails. For example, he uses VisualRoute software from Visualware Inc. in Turlock, Calif., to show judges the Internet route of a particular message.



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But CIOs have a role to play in these investigations too. Leibrock says they should make sure evidence – including e-mail and network logs – isn't purged, contaminated or altered. To put it mildly, "judges have no sense of humor about destruction of evidence," he says.

Leibrock urges companies to establish a clear set of procedures for handling computer incidents – and then practice them. Companies should create a computer incident response team [QuickLink 31034], including a neutral "capture manager" who preserves evidence and keeps records of the "chain of custody."

CIOs also have to resist the temptation to hold back or destroy evidence in hopes of protecting the company or fellow executives. Leibrock says the CIO's loyalty should be to the IT profession and the ethical handling of information required by the court. 53354

– Mitch Betts

Research Debunks Stereotypes About Older Workers and IT

TRACEY RIZZUTO

WITHIN FIVE YEARS, 20% of the U.S. workforce will be more than 55 years old, says the U.S. Department of Labor's Bureau of Labor Statistics. That demographic trend is on a collision course with deeply held stereotypes about older workers resisting change and new technologies.

But research by Tracey Rizzuto, assistant professor of psychology at Louisiana State University in Baton Rouge, finds that some of the prevailing views about older employees simply aren't true.

When Pennsylvania state agencies upgraded their ERP systems for managing procurement, Rizzuto wondered how older workers would fare in adapting to the new technology. So she studied more than 360 purchasing agents regarding their willingness to learn the new systems, as well as their motivation, commitment and satisfaction in accepting the changes. (Nearly 60% of the agents studied were 46 or older, and 11% were over 55.)

Contrary to common belief, Rizzuto found that older workers exhibited more willingness to learn the new technology than their younger counterparts. Veteran employees were more "fired up" about the changes, Rizzuto says, and most of them, though not all, were supportive of the new systems.

Conventional wisdom says technology is the province of the young. "There is some research that shows older workers may not be as quick in learning new technology skills as younger people, but this study shows the commitment and willingness to learn is stronger among the older workers," Rizzuto says.

The key is to provide specialized training programs for older workers to keep them current with new technologies and processes. It's a small price to pay, Rizzuto says, to retain employees who are teachable, adaptable and loyal.

Rizzuto plans to present her findings at an April conference of the Society for Industrial and Organizational Psychology in Los Angeles.

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2. Business/IT alignment
3. Leadership
4. Portfolio management
5. Operations excellence
6. Process maturity

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BASE: 1,000 CIOs at multinational firms

SOURCE: META GROUP INC., STAMFORD, CONN., FEBRUARY 2005

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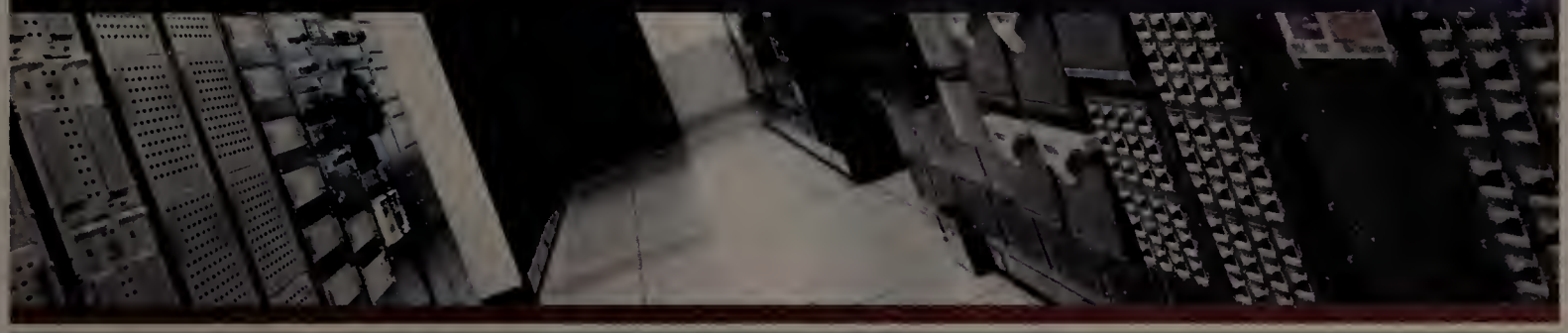

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JUST SAY NO

HOW TO REFUSE ILL-ADVISED BUSINESS REQUESTS AND LIVE TO TELL THE TALE. BY STEVE ULFELDER

FRED HELD was CIO at Mattel Toys Inc. for most of the 1970s. He recalls the day a gung-ho marketing executive, apparently having just read *Popular Science*, asked, "Can we put a chip in every product, hook up to spy satellites and track where everyone goes, so we can really see who buys our toys? We could check which stores have too much inventory and transfer product accordingly."

Disregard the fact that the technology was at least three decades away. The marketing guy was proposing to insert a Cold War espionage-inspired tracking device in every Hot Wheels car and Barbie doll sold worldwide. Can you say "worst public relations calamity ever"?

Needless to say, Held — who is now a partner at Tatum Partners, a professional services firm in Atlanta — declined. "You have a great deal of foresight," he told the exec. "This isn't quite possible right now, but we're going to keep an eye on it." Thus the marketing guy went away flattered, and Held turned him down cold with no ill effects.

This is by no means an easy thing to do, and since Held's days at Mattel, it has only gotten tougher. In today's corporations, IT is supposed to be an enabler, a conduit rather than a gatekeeper. When a line-of-business executive proposes a project, IT is supposed to make it happen.

Unfortunately, some of those ideas are too risky, difficult to justify given the company's overall IT picture or just plain hare-brained. But the IT executive who says no may be putting his career on the line.

The key, according to CIOs, project managers and other experts, is to ask for and provide facts until the person who made the request is forced to acknowledge that the idea won't fly.

'Press Statement' Method

"You need to get everyone to recognize risks and alternatives," says Jerry Luftman, author of *Competing in the Information Age: Align in the Sand* (Oxford University Press, 2003) and a professor at the Stevens Institute of Technology in Hoboken, N.J. "You can't just say no, put your hands over your ears and walk away. You want to get them to recognize why the answer has to be no; that's the trick."

This diplomacy may not come naturally to many in IT, a discipline long known for bluntness. Carolynn Benson, a senior consultant at Bedford, N.H.-based Ouellette & Associates Consulting Inc., says that in training courses, she teaches clients to say no with a "press statement" — a positively worded refusal. "The way to say no is with options," Benson says.

A typical hell-no press statement might begin, "IT is committed to helping your department meet its business goals. After reviewing your proposal, we believe the following options will help achieve those goals and provide value for the company." Absent from the list of options, of course, is the one proposed by the manager.

What do you do when an executive doesn't like this answer? "You push back with your press statement," she says. If things get ornery, you bump the conflict up to the next level with another statement: "The person who can put your request back on track is the CEO. Shall we go to the CEO together and present our arguments?"

Frequently, the big "no" concerns a completely unrealistic time frame for a project. Then IT is not so much refusing to tackle the project as making sure it gets the time needed to do the job properly. Dave Berg, CIO at Salt Lake City-based O.C. Tanner Co. and president-elect of the Society for Information Management's InterMountain Chapter, tells of a recent dust-up.

For more than half a decade, the employee-award company had wanted to automate certain pricing and product-replacement tasks in its backbone application, but the request always fell to the bottom of the pile. Late in 2004, without warning, the head of manufacturing and the chief operating officer "decided all of a sudden that this was the most important thing in the world," Berg says, and they wanted it in January. Berg countered with March. They compromised on February.

IT was on target to make the release date, but an error was discovered in testing. Then came the moment of truth: Berg faced heavy pressure to release the feature with a significant flaw. He'd been forced into a tough spot: A buggy release would cause hundreds of employees to grumble and blame IT. On the other hand, Berg might be viewed as obstinate, a typical perfectionist techie, if he insisted on holding up the release to fix the error.

He held his ground and insisted on additional programming and testing, followed by a clean March release.

Were there some tense discussions when Berg demanded to let the schedule slip? Sure. But that's not the end of the world. As Berg puts it, "If you never say no, you must be a yes man — and nobody likes a yes man." **53264**

Ulfelder is a Computerworld *contributing writer. Contact him at sulfelder@charter.net.*

SPADE WORK

THE ABILITY to turn down a request begins long before that request is made. IT managers agree that to be respected when conflict arises, you must first earn the trust of fellow executives. "Before you can say no, you need a relationship of mutual trust," says Florin Docea, a project manager at The Northwestern Mutual Life Insurance Co. in Milwaukee and a past president of the Society for Information Management.

This trust rests on three pillars:

- **Sound cost-tracking processes.** If your company lacks metrics for IT costs, you'll face an uphill battle in explaining to business execs why the risk-reward ratio of their pet project makes it a no-go. "If there's no way for IT to charge back for a project, business [managers] are not going to experience the consequences" of their requests, says Gartner Inc. analyst and *Computerworld* columnist Barbara Gomolski. "You need an environment where people are really going to be paying for what they're using."
- **Strong relationships with fellow executives.** Fred Held, former CIO at Mattel Toys, says that when he took that job, "a top executive told me, 'If you're not spending 70% to 80% of your time with line executives, you're not doing your job.' "

  Adds Held, "That prevents line executives from saying they can't do their jobs because IT doesn't support them."
- **A history of enabling strong projects.** Your "no" means more if you have a track record of saying yes whenever possible. This is especially important for project managers and others who lack veto power, says Carolynn Benson, a senior consultant at Ouellette & Associates.

  "As a project manager, you don't have direct influence," she says. "So you must build influence by being a strong supporter of business goals."

– Steve Ulfelder

Rational Key

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2. **Scope managed efficiently.**
3. **Resources allocated precisely.**
4. **Progress monitored on dashboard.**
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Career Watch

The CIO as Change Agent

Leading CIOs are playing much more influential business roles than they have in the past, according to a study by Meta Group Inc. The study, "The CIO as Enterprise Change Agent," surveyed 115 senior IT executives in order to assess the evolving role of the CIO, and follow-up interviews were conducted with a subset of CIOs who had exhibited their use of best practices. **Nearly half of the respondents (47%) indicated that they have broadened their responsibilities beyond the traditional CIO role to take on some form of business responsibility.** In fact, 35% came to the CIO position with a business background.

According to Meta, the executives in the study are committed to becoming enterprise change agents. **Respondents repeatedly cited three primary obstacles to transformational success:** an internal culture resistant to change, organizational politics and the existence of too many conflicting priorities.

The following are among the recommendations Meta makes for serving as an effective change agent in the years ahead:

- **Ensure that the IT house is in order.**
- **Respect the difficulty of behavioral transformation.**
- **Become an expert on your industry's value chain and competitive dynamics.**
- **Influence your CEO to create the proper climate for change.**

Maria Schafer

Q&A

TITLE: Senior program director, human capital management

COMPANY: Meta Group Inc., Stamford, Conn.

One of the biggest gaps in IT workforce management these days is the lack of succession planning both for technical line workers and for the next generation of junior and midlevel IT managers, says Maria Schafer.

The problem is expected to become particularly acute over the next 10 years as many baby boomer IT workers reach retirement age and fewer IT workers enter the market, she says.

Schafer spoke with *Computerworld*'s Thomas Hoffman about the pending problem and steps that IT executives should be taking to address it.

Are IT organizations unprepared to deal with the changing workforce dynamics that are expected to occur over the next several years? Ten years from now, we're going to be facing a big potential gap. Senior management hasn't done a good job with succession planning. We just don't think in long-term horizons in the U.S. like they do in Japan and Germany.

What steps should IT executives be taking to address this? This concept of succession planning has to be made more of an ongoing process and has to extend down the chain farther than it has in most places. It's about identifying who your next set of leaders is, not just at the executive level but also project managers and project leaders. That's how you create opportunities for people at these levels: putting in place some development activities for a structure and path for them to follow.

What else can be done? One thing I often hear from IT management and HR people is how there's an unwillingness among IT workers who have been in certain positions for a long time to explore reskilling or new training. It comes back to this whole idea of creating a continuous learning environment. IT management and HR can help here. That means developing a more strategic orientation from a variety of constituencies. What the individual IT worker needs to do is to be open and to communicate that openness to learning new types of techniques to help increase their value to the organization. Companies want people who have skills that go across a variety of areas. **53233**

Feeling Insecure

An informal online survey by Dice.com in February found lack of job security to be the greatest contributor to IT job stress.

In your opinion, which factor is the greatest contributor to IT job stress?

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The Lure of Foreign Shores

Senior executives are showing signs that they're up to the challenge of taking a career risk.

Which of the following major career changes would you consider? Pick only one.

Number of respondents: 2,704

SOURCE: SURVEY BY KORN/FERRY INTERNATIONAL, FEBRUARY 2005.

Where's the Gusto?

Management consistently deadens the natural enthusiasm that new employees bring to their jobs, according to the book *The Enthusiastic Employee: How Companies Profit by Giving Workers What They Want* (Wharton School Publishing/Pearson, 2005). According to research by authors David Sirota, Louis A. Mischkind and Michael Irwin Meltzer, **employees' enthusiasm declines by up to 15% after they have gained more than six months on the job** – and it never recovers to the original level.

The authors cite several reasons:

- Management's policies are aimed toward the troublesome 5% of employees rather than the good 95%.
- Managers are often indifferent to those they manage.
- Companies have been too quick to respond to adverse business conditions with layoffs.

"It's hard for people to be enthusiastic about an organization that is not enthusiastic about them," says Sirota, the book's lead author.

2003-04 Survey Results

CATEGORY	JOB SATISFACTION (out of 100 points)
Employees with average of six months with employer	80
Employees with one to five years service to employer	69
Employees with six to 10 years service to employer	68

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PAUL GLEN

The Wages of Fear

IN THE CIRCLES OF POWER, fear is often admired as a potent motivator. In his classic discourse on power politics, *The Prince*, Niccolo Machiavelli offered the following thoughts on the question of whether it is better for a leader to be feared or loved:

"If we must choose between them, it is far safer to be feared than loved. For of men it may generally be affirmed, that they are thankless, fickle, false, studious to avoid danger, greedy of gain, devoted to you while you are able to confer benefits upon them, and ready . . . while danger is distant, to shed their blood, and sacrifice their property, their lives, and their children for you; but in the hour of need they turn against you."

So naturally, he would have considered occasional, small-scale cruelty justifiable and wise when it inspired fear and enabled a prince "to keep his subjects united and obedient."

Ethical issues aside, this seems to work reasonably well, at least for a while, if your goal is to control the behavior of a population, quell social unrest or suppress dissent. But if your goal is to lead a group of knowledge workers to peak productivity, this may not be a recipe for success.

As a consultant and speaker, I have the privilege of peeking into many companies, associations and IT departments. Within each, one can discern subtle attitudes, beliefs and emotions regarding their leaders.

In organizations where the leadership either deliberately or inadvertently cultivates fear, I've observed some interesting patterns. Few of them are particularly helpful for the organization or its leaders.

PAUL GLEN is an IT management consultant in Los Angeles and the author of the award-winning book *Leading Geeks: How to Manage and Lead the People Who Deliver Technology* (Jossey-Bass Pfeiffer, 2003 *www.leadinggeeks.com*). He can be reached at **info@c2-consulting.com.**

Creative energy is misdirected. There seem to be limits on the creative energy of any group. Only so many hours a day are really productive for generating the best answers to the important questions at hand. When a group comes to fear its leadership, a great deal of that creative energy is siphoned off into questions of how to mollify the manager rather than how to support the organization with technology.

The staffers focus their attention on what they feel are basic issues of personal security rather than on organizational accomplishment. If an employee is worried that you might publicly humiliate her because she forgot to use the official corporate PowerPoint slide template, then she's diverted some of that vital energy away from the valuable content.

Offhand remarks are transformed into rigid policies. One way for staffers to avoid potential confrontations is to try to get decisions made in informal chats.

Imagine that you are the scary boss. You're walking through the hall, and a subordinate tells you, "We're going to send you a status report on Friday." And you say, "Sounds great; the morning is best," because you'll be leaving early to visit your grandmother in Schenectady.

Next thing you know, every project manager in the organization is grumbling, angry and upset, because they've all heard that there is a new policy that EVERY PROJECT MUST HAVE A STATUS REPORT DELIVERED TO THE BOSS BY NOON EVERY FRIDAY . . . OR ELSE. There are whispers in the hall, "How come we can't turn them in Monday? Why can't we use the weekend?"

The pressure builds until someone eventually breaks and blurts out his frustration and incredulity at a public meeting, and you're left slack-jawed wondering how this all started.

No one wants to talk to the scary boss. You've announced an open-door policy. All staffers have an open invitation to come to your office to discuss anything troubling them. Yet, on those rare occasions when you're not in a meeting, you could hear crickets chirping to the gentle whine of your hard drive. No one wants to talk to you.

Before long, you don't really know what's going on. The staff has spent its creative energy constructing a rosy picture of reality, presented in the most formal settings, designed to avoid your wrath.

And, sadly, you're probably smart enough to know that you're being snowed, but you don't know quite how to break through to these people. Eventually, your frustration comes out in a burst of anger — and the cycle begins again.

These are among the wages of fear. On the good side, the staffers have been unified. On the bad side, they are probably unified against you. **53263**

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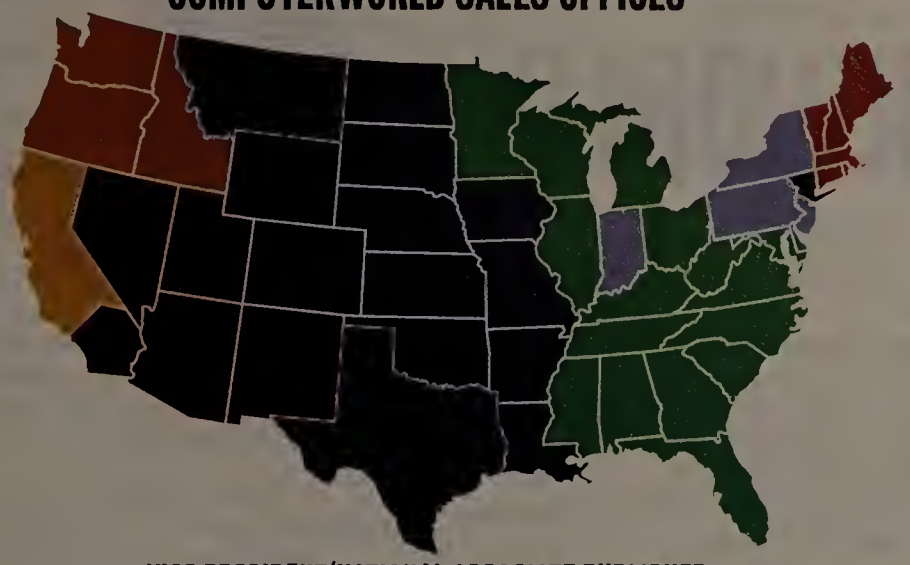

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Comdex

America in Secaucus, N.J., said that in the early 1990s, Comdex was the place "to see the latest and greatest technologies that were rapidly rolling out."

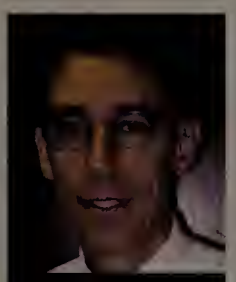
But that changed as Comdex showcased mundane accessories such as mouse pads. "The event became overwhelming, and the value was diluted," Schwartz said, adding that he stopped attending and watched as major sponsors and vendors bailed out.

San Francisco-based MediaLive International Inc., which took over the show in 2003, said this year's planned edition was canceled because of a continuing lack of interest and financial commitments from major IT vendors. The same problem drove MediaLive to give up on Comdex last year [QuickLink 47727], but the company said then that it would try again this year.

Dwindling attendance has also been a factor. About 40,000 people attended the show two years ago, down from some 200,000 in its heyday.

A spokesman for the show couldn't be reached for comment despite several attempts. In a statement, MediaLive said it has made "significant progress" in working with vendors and other parties to rethink Comdex. MediaLive still hopes to bring the show back to life in 2006, but it noted that "considerable work" needs to be done first.

"At least for the time being, the need for a general industry-pat-on-the-back type show like Comdex is not here," said Charles King, an analyst at Pund-IT Research in Hayward, Calif. But that could change at some point, he added. "These things tend to go in cycles."



LEWIS says Comdex was never a "must attend" event for him.

Michael H. Hugos, CIO at Network Services Co. in Mount Prospect, Ill., and a *Computerworld* columnist, said he last attended the show in 1998 and wasn't planning to go this year. "It had very little relevance to me because it tried to reach such a broad audience that the whole event became very unfocused," he said in an e-mail message.

"In the early days of the PC, Comdex was really focused on just the PC, and it was the place to go to see the latest advances in PC technology," Hugos wrote. "After the late '90s, it was no longer worth my time."

David Lewis, CIO at Deseret Mutual Benefits Administrators, a Salt Lake City-based nonprofit that administers welfare and financial benefits, last attended Comdex about 15 years ago. "I now focus on CIO-level discussions" at more-targeted conferences, he said via e-mail. "My issues are more strategic than specific vendor solutions, although those are still important."

Lewis added that the show was never a "must attend" event for him. "If we wanted to see a particular vendor's offerings, there are other ways to see them," he said.

Vendor-driven Event

Bruce Barnes, a principal at Bold Vision LLC, an IT consultancy in Dublin, Ohio, said Comdex was useful a decade ago and agreed with others that it lost its way.

"One of the largest telling tales is the fact that the organizers have tried to revive the event by creating an advisory board of vendors," Barnes said via e-mail. MediaLive should ask users for input, he added.

But Jim Speer, director of information systems at Mesa, Ariz.-based Tallcy Defense Systems Inc., said hc's disappointed that Comdcx was canceled for another year.

Speer said he has sent his entire staff to the show in the past and was waiting to see about this year's event. "My feeling was that we needed to go every couple of years," he said in an e-mail. "It appears that it is in trouble."

Comdex has been "one of the only shows that gives my people a chance to get a view of a lot of new technology in one place," Speer added. "The difficulty was that it was very big and it was hard to see everything."

Speer said he still thinks a reconfigured Comdex could be useful for corporate IT attendees, but only if MediaLive makes big changes. "We need technology shows that educate, and Comdex had that potential," he said. "It moved away from that.... The last show I attended felt more like a flea market." **53527**

Continued from page 1

OS Update

include a built-in firewall, Network Access Quarantine Control components to isolate out-of-date virtual private network assets, and a wizard that gathers information about the roles of servers and blocks services and ports that aren't needed.

"That's great, because we don't have to integrate it all piecemeal. It comes all at once," said Jonathon Addington, a network administrator at sporting goods equipment manufacturer K-2 Corp. in Vashon, Wash.

Addington said that in some cases, K-2 has already brought in third-party products to provide some of the functionality that Microsoft is adding in SP1. But the prospect of not having to buy other products, such as firewall hardware, is enticing. "It could save a great deal of money," Addington said.

However, that won't provide any relief for past investments that were needed to fill the voids in Windows Server 2003, noted an infrastructure support director at an insurance company who asked not to be identified. Microsoft "came late to the security party," he said. "It's hard to thank the car dealer for delivering the tires today when the car was bought years ago."

The Security Configuration Wizard in SP1 gives companies new capabilities to harden their systems against attack, but the insurer has already tackled that on its own. The support director there said he's not sure that abandoning the company's proven methods in favor of Microsoft's tools would provide better protection.

Microsoft initially said Windows Server 2003 SP1 would ship in the second half of last year. But when the company marshaled its resources behind Service Pack 2 for its Windows XP operating system, that disrupted the schedules for other Windows releases, according to Al Gillen, an analyst at IDC.

Gillen said the delay on Windows Server 2003 SP1 didn't have a critical impact on most corporate IT shops because Microsoft has released some security enhancements along the way. Also, the initial software was more secure out of the box than the typical Windows release is, he added.

Yet even companies that have regularly patched their systems should look at installing SP1, according to Samm DiStasio, director of product management in Microsoft's Windows Server division. He said Microsoft made changes as part of SP1 to address the root causes of certain classes of attacks, and those tweaks aren't incorporated into the existing patches.

One major concern for users deploying any operating system update is application compatibility. To that end, Microsoft has tested more than 125 applications with SP1 and plans to post a document on its Web site to show the findings, DiStasio said.

Some beta testers spotlighted by Microsoft said they have seen only minor problems, and they were quickly resolved. For instance, the IT department of the government of Fulton County, Ga., hit a "couple of bumps" last ycar while testing SP1 on 30 scrvers. But Russell Moblcy, an assistant director of IT for the county, said staffcrs encountcred no problems deploying thc final releasc on 100 production servers running Exchange, file-and-print and directory services, and various dcpartmental applications. **53526**

NEW FEATURES

Windows Server 2003 SP1

Security Configuration Wizard: Gathers information about server roles and blocks unneeded services and ports.

Windows Firewall: Allows networkwide end-user access control through Active Directory's Group Policy feature.

Postsetup Security Updates: Blocks all inbound connections after installation until Windows Update has downloaded the latest security updates.

Internet Information Services 6.0 Metabase Auditing: Lets IT administrators identify potential malicious users if the data store becomes corrupted.

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BPA ABM REPTAG

FRANK HAYES ■ FRANKLY SPEAKING

Listen Up, Mark

MARK HURD, you're about to take over as CEO at Hewlett-Packard, and every IT industry blowhard is talking about you like you weren't in the room. He's a small-timer from dinky little NCR. He's a Wall Street darling who quadrupled NCR's stock price. He's a cost-cutter who doesn't do R&D. He's a great fit. He's a lousy fit. He's a mystery man.

You're going to hear a lot of advice, and a lot of verdicts on how well you'll do from people who never heard of you a week ago. And, yeah, you're about to hear that from me, too. First the advice:

Listen. Listen. Listen. Then execute.

Look, you've inherited a mess. What Carly Fiorina was good at was stretching HP in all directions. HP swallowed Compaq, including Digital Equipment and Tandem. HP jumped into consumer stuff in a big way, selling TVs, music and satellite radios.

HP's corporate culture also got stretched out of shape. Fiorina arrived late in the dot-com boom, when the low-key, engineering-focused "HP Way" seemed like a quaint anachronism. She left at the tail end of the worst IT downturn ever. In between, lots of HP people felt like they got run over by a truckload of bad ideas.

First of all, listen to those HP people. You're an outsider. You don't know where the bodies are buried in Palo Alto, where the problems lie, where the untapped strengths are. You'll learn some of that from the top HP execs you decide to trust. But that's not enough.

So if you don't revive anything else of the HP Way, try what Dave Packard called "management by walking around." Hit the hallways. Show your face. Keep your ears open. Talk with some of the 150,000 HP employees without whom you're toast — and listen.

Next, hit the streets. HP isn't NCR; you know that. HP's big customers have their own expectations, preferences and needs. And they've been waiting for you. Do a little talking and a lot of listening. Let them see that the new guy isn't such a mystery. Pay attention to what they ask for, and also to what they *don't* ask for. Make no assumptions. Ask questions. Listen.

Then take what you know and go back to the board. They hired you because you worked miracles at NCR. But you can't just sprinkle the same operational fairy dust on HP. There's no clear focus like the one NCR has on transactions. You'll have to decide which of HP's jumble of directions, initiatives and ideas get the nod.

So present a plan, based on what you've learned from employees and customers. Then listen. This board has been divided against itself. You need the board's unified support. Listen. Adjust. Keep listening.

Finally, execute. You know what you were hired to do. "Operational efficiency" means cutting costs, some of which are attached to warm bodies. In the short term, "driving shareholder value" means the same thing. A lot of that listening is to make sure that you cut the right costs in the right places.

But it's also so you'll be ready for the next step: delivering what customers want. That requires finding your own focus for the mess that is HP. You weren't really hired for that, but it's where the real miracles need working at HP.

Can you do it? I have my doubts. HP's problems aren't just operational, they're structural. You're facing a big pile of undigested initiatives and hamstrung by a board that wants stability right now. Frankly, I think you'll succeed at the cutting and fail at the focusing. Once you've chopped away at the HP jungle for a while, you'll be dumped.

Prove me wrong. Make it work. That's what HP's employees want, and its shareholders, and most of all its customers. Your success means their success. If you win, everybody wins except the naysayers.

So listen, listen, listen, and execute. Then, just maybe, you won't have to listen to people like me anymore. **53485**

FRANK HAYES, *Computerworld*'s senior news columnist, has covered IT for more than 20 years. Contact him at frank_hayes@computerworld.com.

SHARK TANK

Think Like a User

User: "I forgot my ID to log into the network." Support pilot fish: No problem, sir - it's just your name. User: "How do you mean?" Fish: Your ID is your first initial plus your last name, up to a maximum of eight characters. User: "But how did I spell it?"

Honest!

Sales guy wants IT manager pilot fish to remove a word from his spell-check dictionary. What word? *Lie*. "When I realized he was serious, I asked what was wrong with that word," fish says. "He said he meant to type the word *like*, but he inadvertently dropped the 'k' and the spell checker didn't warn him. So if we took *lie* out of the dictionary, this wouldn't happen again!"

The Reason Why

This laser printer suffers lots of paper jams and appears to be in pretty rough shape, so it's scheduled for replacement. "Of course, before the replacement was ready, we were called, once again, to fix a paper jam," says pilot fish on the scene. "This time we must have asked the correct troubleshooting question, because the user's response was, 'No matter how hard I hit it, it still won't work.' "

Right Idea, Wrong Part

User gets a new flat-screen monitor, and his old CRT is being handed down for use with another machine. But he's not happy. "As the tech was taking the monitor to its new home, the user insisted that the monitor be 'reformatted,' " says a pilot fish watching it all. "He was concerned that people using the monitor would be able to see what had been on his screen."

Line Dance

Remote user is having trouble with a spreadsheet program. I can't get to the data in one field because there's a picture of little people holding hands, she tells support pilot fish. Little people holding hands? "I kept trying to find out what she was looking at," fish says. "I finally realized her cell had too much data in it and was filled with asterisks in a row that looked like stick people to her – all holding hands."

Not to Milspec

Pilot fish has worked at small businesses for years, until he's hired as a sysadmin at the Pentagon. "Not long after I was hired, a co-worker and I were working on a knotty problem getting a switch configured," says fish. "After a long struggle, he finally got it solved. I cheered and said, 'Woo-hoo, my man! You are the bomb!' He looked at me and said that now that I was employed in the Pentagon, I might want to be a little more careful about what kind of slang I used."

SHARKY TALKS THE TALK. Send me your true tale of IT life at **sharky@computerworld.com**. You'll snag a snazzy Shark shirt if I use it. And check out the daily feed, browse the Sharkives and sign up for Shark Tank home delivery at **computerworld.com/sharky**.

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